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**—HANS CHRISTIAN ADAMSON**

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**That wild animal trainers never carry guns?**

**—That elephants have molars as big as a man's hand and  
that they can, and do, pull their own teeth?**

**—That Gargantua, the most vicious animal ever in captivity,  
was "his own worst enemy?"**

You'll learn these and hundreds of other strange facts  
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**To anyone who loves animals, this book is a must!**

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—Binghamton PRESS



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# CIRCUS DOCTOR

BY J. Y. HENDERSON D.V.M.  
CHIEF VETERINARIAN  
OF THE RINGLING BROTHERS  
AND BARNUM & BAILEY CIRCUS

As told to RICHARD TAPLINGER



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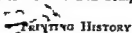
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## CIRCUS DOCTOR

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erous boyhood dreams, waged fierce and total war inside my brain

Circus life—

a lot of wars

The pay for them

was in

boats

leg

quite a change for me!

My father was a small rancher in Kerrville, Texas about twenty-five miles out of San Antonio. I grew up in the midst of horses, cattle, goats.

My father

My father trusted me with my own horse, and my three brothers handled animals well too, but I was apparently the only one who inherited Papa's love for them all.

When I had nothing else to do, I would always be with the animals—watching them, grooming them, playing with them and, when old enough, working them.

Papa was particularly fond of horses and so was I. He was a meticulous rider by the time I was ten he had trained me to be an able, good horseman. He never tolerated careless and sloppy riding, not because he wanted to make showmen out of his sons, but because he had too much respect for the horses.

Once, when Papa and I were riding the range, I got about a hundred yards ahead of him. My legs were aching and tired—as they frequently were, because he insisted we ride erect with the legs tight, back relaxed but straight as a rod.

"When you slouch in the saddle," he would say, "you are off balance and you are hard on the horse. Sit straight and spare your horse."

For a kid of ten, this is tiring. So once well out of my

To Sweetheart and Sonya, to Benny V and Ruth,  
to Champion and Rossia and Astral Princess, and  
to all my other friends and patients, this book  
is affectionately dedicated

If you pick up a starving dog and make him  
prosperous, he will not bite you. This is the  
principal difference between a dog and a man.

—MARK TWAIN

## Want a Job?

have been teaching them their ways of "progressive edu-

5

Goats are part of my earliest recollection. When I was about three and Papa did not have his own ranch yet, were living with Mother's folks; here he borrowed to invest in goats. Every cent he had went on the one who - molar was a valuable crop but at first he could not even afford a shed to shelter them.

In Texas hill the temperature may be seventy degrees and within a few minutes drop to forty so that even has to be particularly careful when he shears his lot that freeze to death if that cold or rainy spell comes up. When Papa had first shown his animals and the wool within a two hours the wind shifted the day turned to a blizzard cold and rain. All the adults in the family made set to carrying every piece of furniture of the house and taking all the coats and bedding then inside. There we all stayed for the night until it turned warm again - nobody there except us goats.

As I grow older one of my jobs was to ride the fence line. Goats are far from being the brightest animals in the world and their favorite habit is to stick their heads through the wire mesh of a fence in an effort to graze on the other side. There was never the slightest bit of difficulty in the grass on either side of our fence, but to the goat as the horse the distance always looks greener. Then of course the horns find them and they were stuck, for this being permanent it was necessary to "ride" the fence or to cut the animals would have simply starved to death in a few days.

Besides that goats are unreasonably surefooted and have the remarkable knack of being able to jump down tremendous distances to land in very small areas without hurting themselves - and yet they don't unfortunately have the ability to jump back up again.

father's sight, I took my right leg out of the stirrup, tossed it over the saddle horn in a relaxed position. Papa came galloping up and ordered me off my horse.

"Now, son," he said, "lead the horse back home." It was a little matter of five miles, it made an adequate impression. Never since then have I ridden a horse off alone.

As each child was born, Papa gave him a heifer, for very own and as soon as we were old enough, we had to take complete care of our cow. My father supplied feed, pasture, barn space and use of his bulls. The cow remained our property, and any heifers born remained the property of the boy whose cow had bred. Papa took all the calves. We never thought of the cattle as commercial enterprises, however, they were more like pets.

Our little one-room village school, I now realize, was something which today in a big city would be called 'experiment in practical progressive education.' We didn't know then about such things. To us it was just school. But some thirty-six years ago, in this country, one room school besides learning to read and write and where Dallas, Chicago and London were located on a map, we were trained to take care of our fathers' farms.

We were taught about animals—not out of a textbook, but by the animals themselves. Each child would be assigned one from his father's stock. He would be told to go home and take a sheep, goat or cow, or whatever the family could be persuaded to let him have, to feed the animal and to give it every attention it needed. At the end of each year, we had a sort of miniature county fair at the little school. Each of us would bring in the animal we had cared for, and ribbons were awarded for the best in the best condition.

This didn't seem particularly startling or modern at the time, but from what I have seen and read about big city schools I suspect that some of America's rural schools

have been teaching them their ways of "progressive education."

Goats are part of my earliest recollection. When I was just about three, and Papa didn't have his own ranch yet, we were living with Mother's folks here he had enough to raise a few animals, which he couldn't even

In Texas the temperature may be seventy degrees and within a few minutes drop to forty, so that every farmer has to be particularly careful when he shears his goats lest they freeze to death if that cold or rainy spell comes up. When Papa had first shorn his animals and sold the wool within two hours the wind shifted the day turned bitter blustery cold and rainy. All the adults in the family madly set to carrying every piece of furniture out of the house, and taking all the goats and herding them inside. There we all sat for the night until it turned warm again—nobody there except us goats.

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was by far the most interesting part of our work, although I felt to haul us out of bed at all hours of the night and in all kinds of weather.

Dr. Young and I equally divided the hardships and easy job. We took turns at both the hospital work and the farm calls. This kept us from getting bored. It also enabled one of us to get rested up doing hospital duty after spending the previous night racing around on farm calls.

About two months before North's call a terrible anthrax epidemic had broken out among all the animals on the surrounding farms. This deadly disease, often fatal to animals, and humans, strikes with the suddenness of lightning. Animals die almost before they can be treated, humans catch it through direct contact with infected animals.

When an epidemic broke out in those days it was almost impossible to do anything for the infected animals, the healthy must be vaccinated at once if they were to be saved. Today penicillin is a successful combatant, but in 1931 this drug was only a rumor to us in the country.

I had with studied about anthrax in school—epidemics, fortunately being rare. But now in the surrounding farms thousands and thousands of animals of all kinds had to be vaccinated practically at once. Dr. Young and I, and also Dr. Young's brother Pete who was associated with us, had worked twenty-four hours a day. When one of us got too exhausted to go on we would grab an hour's sleep when we could and where we could, then continue the effort to get at as many animals as possible.

When the epidemic had first hit and we could only suspect it might be anthrax, I had performed a post mortem on the first anthrax-suspected cow to die. As I pulled her spleen out it hit my left arm leaving a redish-splotch just where I had an open cut. This insured my getting infected. Despite the fact that I happen to be allergic to any horse serum I had to undergo inoculation



And so we boys would go out I, being the lightest, would be lowered down a cliff by a rope. My job was to put another rope around the goat, then my brothers would pull both of us.

So life went on till I was eighteen and wrote to Texas A & M Agricultural and Mechanical College for the veterinary school prospectus—and was so intimidated by it that I actually enrolled in the engineering course! But it didn't take me long to find my way back to animals and I enrolled college with a good practical knowledge of them. Which was fortunate in another way too. By the time I enrolled, Depression had arrived and Papa's moderate prosperity disappeared around the corner with that of so many other hard working citizens. He had always boasted that he could never go broke because he never had enough to go broke with, however these things are relative, and the simple fact was there wasn't any money to pay tuition.

But I had one thing to sell—knowledge of horses. I rode as an amateur, showing horses in the amateur class all over the state on week ends and training and riding horses for the college and at last I made enough to pay my way through the veterinary school.

When John Ringling North made it his offer to travel with the circus I was in practical contact with Dr. A. A. Young of Greenvest, Louisiana. We had a look at his winter quarters and diversified practice and his place was a complete setup. Dr. Young is one of the best of the young doctors in the country, so I was enjoying my interview with him.

His practice was divided into two parts.

We had a typical small animal hospital in which we took care of the dogs and the cats of the neighborhood population and we had a large firm practice with

## Want a Job?

of the wild and semiwild animals the circus carried. As far as I had learned, no one knew too much about them besides the life. The actual job was a mystery.

Well, I thought, another doctor might just take his chance on their living or dying if his limited knowledge couldn't help. But I like animals too much to make myself responsible for them without knowing I can give them really adequate care.

I decided to find out as much as I could about how wild animals are treated before making up my mind. There was one month in which to investigate.

Between visits to the library, I made countless telephone calls to Dr. J. A. Northway, chief veterinarian of the King Ranch, whom I knew of old.

At the end of that allotted month I had discovered two interesting facts.

Not very much indeed was known about treating sick wild animals, mostly because no one had garnered any experience. Wild beasts were usually restrained for treatment when injured, but were seldom watched for disease they were subject to.

The second thing I learned from Dr. Northway was that the circus's biggest preoccupation was with its horses. Ringling Brothers had a fortune tied up in what was undoubtedly the most beautiful collection of horses in the world. They wanted everything possible done for the rest of their animals too, but experience had taught them that they couldn't expect that to be too much.

At this time certain drugs like the sulfa group had just come on the market and there were other drugs like penicillin which were not then ready for use, but which

against anthrax and I took to it so badly that for a while I thought I was going to die.

The past two months I had spent trying to fight the effects of that anthrax inoculation yet growing more and more rundown from the resulting desultory appetite and debilitating insomnia. By the time that September evening rolled around, I was probably at the lowest ebb of my life. I was physically and nervously depleted and suffering from the moodiness and discouragement that only complete exhaustion can bring.

Now, as I sat in my living room in the dark after that telephone call smoking cigarette after cigarette these episodes of my life wandered around in my mind. I've always felt the future can only be built on what has gone before. How did my sort of life lead to a circus?

Suddenly I remembered a story Mother liked to tell. When I was ten and returning from my first circus I very proudly announced to the family, "I am going to be a veterinarian when I grow up and I am going to work for Ringling Brothers Circus."

So here was my chance to fulfill a childhood dream. How many of us ever have that opportunity?

Still I had doubts. It had taken me many years to learn my preference for the company of animals to that of people. But surely circus people would be mighty different from folks around Texas and Louisiana? I knew nothing about living conditions in the circus except that animals traveled in cattle cars. The doctor probably traveled with them? Where would I sleep—in a tent or boxcar? What would I eat—badly prepared food or mostly wind-wiches? It was an unknown world to me difficult to imagine.

I could imagine the horses all right but I knew absolutely nothing about the handling diseases or treatment

## CHAPTER II Meet the Patients

A PARTICULARLY REMARKABLE prize-winning defeat had recently immortalized the expression, "I should of stood in bed"

So now as my train sped eastward towards Sarasota, through calendarlike Southern landscapes, the wheels seemed to click along to nervous reiteration "I should of stood in bed . . . I should . . . of stood . . . in bed . . ."

To the vision of seven hundred wild animals hungrily baring their chops I shudderingly got off at Sarasota

Bustling streets, colorful with palm trees and tropical shrubbery . . . a DRIVE IT YOURSELF sign With a car soon

the dentist

A huge billboard ahead . . .

RINGLING BROTHERS

BARNUM & BAILEY

The Greatest Show on Earth  
(Turn left here)

Handsomely decorated with roaring lions, great mouths filled with long, sharp, hungry fangs . . .

I turned left.

Almost immediately I came to the Main Gate



Just like that No preliminaries; no wasted time. Sick animals are waiting

As we walked outside of the electrical shop Mr North paused

"This is it" he said proudly swinging his arm in a complete arc

Pointing straight ahead almost as far as one could see, he indicated a large, square, brick building. "That's our machine shop" he said. "That is where we build and repair everything we use here or when we are on the road. We even build our own specially designed railroad cars. Everything but the axles and wheels."

"Wouldn't it be easier to use reconditioned standard boxcars and coaches?" I naively asked.

"And how would you fit a giraffe into a standard boxcar?" he demanded.

I scratched my head over that puzzler, my first stupefying realization of the enormity and the complexity of the manifold problems that were daily fate to the whole circus organization. I should doubtless have to digest some of my own, but first I must learn what they were.

Mr North's arm swung gradually to the right. Where he pointed off in the distance I saw a large arena, about the size of the big top. It had a ring for horse and elephant acts and a large grass area for acrobats, spectacles and miscellaneous performances. On the far side of it was an old grandstand similar to the kind found in any neighborhood ball park.

"That's where we give our Sunday shows for the tourists, and where all our acts do their rehearsing when we're here in winter quarters," Mr North explained.

Then he toured me through all the buildings scattered over the endless acres of the lot. In the monkey house I met Cargantha and M'Toto lolling but still glowering. L-reech, in their air-conditioned cages. The Diana and



We stopped in front of a huge black bear sluggishly lolling in a corner of the cage. I looked at him. He looked at me.

"Looks like you have a patient already, Doc," North stated. "Tim is rather mean," he warned—then fortunately added "I wouldn't examine him right now if I were you, but he's sick. Just on a quick look what do you think is wrong?"

This was the first time I'd been at closer range to a bear than perhaps, fifty yards. At first glance he had seemed like any sleepy bear and I vaguely remembered hearing something about how bears hibernate. Now I studied his eyes. They seemed unusually yellow and as he opened his mouth I noticed more undue yellow around the gums.

Under pressure from my new boss a strange thing now happened. Suddenly the bear was no longer a bear. He

later complaint.

Notching my thumbs in my belt and settling back on my heels I turned to the boss and said "I think this bear has something seriously wrong with his liver."

"Liver? He was obviously surprised.

"That's what I think without examining him," I said, "but I'd like to look him over."

From his shirt stand, he hailed a dignified gentleman of medium build.

"Here is someone you will want to know right away," he told me. "Mr. Court, Doc Henderson, Doc, here, is our new vet. You've probably heard of Alfred Court, Doc."





middle of the knal, the enormous animals surrounding us and looming over us like redwood trees, it was impossible to avoid the implications of their pink, mean little eyes.

I was relieved to see the lethal tusks had been removed—until a thought came whose job would it be to take out those of future elephants?

In a short time we were back in the main hall.

less."

"If you ever need any help, just call on me, Doc!"—McChen took up the cheerful refrain—"I know most of these animals pretty well and have a lot of good friends among them."

I was taken back to the main hall.

"I was taken back to the main hall."

we are making themselves available.

"I might as well show you the trained cats while we are about it," North reminded himself. "They chew each other up quite a bit and they will be probably your most frequent and certainly your most important patients."

He led me through the "cat barn" with its scientific indoor and outdoor cages. We came to the outdoor cat training area. There I was startled by the spectacle of a bare-chested bronze-skinned man standing in the affectionate embrace of a cat. He was playing with it, called her "cat" but highly excited, returned to

## Circus Doctor

Indeed I didn't have to listen to the rest of the production. Mr. Court is called the greatest trainer of animals of all time.

This was the biggest thrill I'd had in years. Since I was a kid I'd known his name and had seen him do one of the most difficult acts that can be performed with wild animals—the mixed group. I have seen Court put through their paces lions, leopards, panthers, tigers, jaguars, polar bears, and great Dinies in one cage at the same time. I exactly how difficult it is to train and control a cageful of natural enemies took me years of experience with the circus to learn. But even on my first day there, I knew that it was the peak of daring and efficiency in wild animal training.

I hope you won't let all these new animals scare you, Court said kindly.

I'm not exactly scared. I tried, but "I know," he finished. "You can't imagine ever touching them ever again, ever then, let alone having to treat them. Well, don't worry."

I'd like to think my cure of them was for their own good.

I'll be glad to be of any help. I explained. Call on me. As far as the animals are concerned, I'll help you by telling you just what they're like. But I know each individual animal. It's a little different. But I know. We are pretty friendly. I have to go on my business. This amused me. "I'll be glad to be of any help."

I was to learn that friendship with wild animals was not

and can never be completely trusted

the wall of horses' heads to the middle of the main horse corral. On three sides of us there were open stalls, and on the fourth were box stalls where the most favored horses were kept. In the immediate center of the corral were patches of grass decorated with palm trees and a large watering trough.

I felt that the entrance to the corral would justify plagiarism in an inscription. Through these portals pass the most beautiful horses in the world.

I drove and the horse doctor and I.

h . .

t .

d .

beautiful even more. Along the far end were the ponies. In

all, the show carried about two hundred horses—divided between this corral and the lower corral across from the cat barn—and all in A 1 condition.

The horse doctoring was to prevent many problems, but here I was thoroughly at home. This I looked forward to with keen anticipation.

So there were my patients. I remembered —

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at

at

sh

sh was his size when re-seen after a long absence by the



those wild animals would also be doctored

The next morning North was on the job even before I checked in. He called me into his office.

"Doc," he said, "Tim the black bear died last night. I didn't think he was as sick as all that or I would have used you."

"I am sorry to hear that, Mr. North. I really should have examined him yesterday. Do you mind if I perform a post mortem?"

"I wish you would."

The animal was brought to my operating table where North stayed to watch. I opened the bear and cut straight for the liver. And there sure enough growing right on top of it, was a tremendous tumor.

"Nice guess, Doc."

I couldn't restrain a grin. If a knowledge of dogs and cats and horses and pigs could really be transferred to their wild counterparts so easily, then maybe I was going to be able to keep these seven hundred wild animals in pretty good physical condition.

Before the day was out, North invited me into one of the streamlined railroad cars, took a key out of his pocket and opened the door.

"This will be your stateroom on the road," he told me—and when my surprise must have showed, "How did you think you were going to travel—cattle car?"

I laughed embarrassedly, probably making it very obvious that that was exactly my thought.

"We do have a cattle car for you," he added, "in case



from early morning until late at night and frequently right long, I was on the circus grounds. This was not a case of love of hard work or long hours—I hadn't been from Texas long enough for that. I was plunged headlong into an overpowering job. I wanted to learn about it very rapidly and I was learning that for me there was a lot to learn.

For instance, once I pointed my finger—"What is that little animal there?"

The menagerie superintendent looked over and laughed.

"A cinnamon bear—and they aren't so little. That happens to be a baby."

I laughed too. Not until then I had thought vaguely that bears came in two varieties—bears and polar bears. Our circus owned five different kinds.

\* \* \*

The show had just come into winter quarters for the next four months all we could first rest then the performers would start practicing new tricks and in many cases new acts then for about a month the entire group together with new imports would be co-ordinated into a finished performance for the road.

Although now there was no daily packing and unpacking and while having all the animals permanently housed for the period was an advantage, life was busy and sometimes hectic.

The animals were not used to the new surroundings and were weak with vomiting because of the ocean trip and nervous because of their new surroundings. Animals I have found, are particularly sensitive to their neighbors. Put one next to a different animal from the one he is used to and you are likely to have trouble. I had known this to be true of



you have a very sick animal who needs sitting up with the road."

He described to me what was to serve for cars as a hospital car. It was a car with just blank stalls in it—good sized stalls, with equipment to keep animals from falling from train motion or illness—and sleeping quarters for me or one of my assistants at the far end.

"That is for you when you want to use it or need to use it," North said, "otherwise, this stateroom is where you live."

It proved more than comfortable living. Pullman travel even at its best could never be as homey as I was to find that circus setup.

## CHAPTER III Starting—with a Roar

IT MIGHT HAVE BEEN the Florida climate it could have been the vigorous routine of life in the circus or perhaps the complete change of every detail of my way of living effected the cure. Not being an animal I don't pretend to be able to diagnose for myself. The fact remains that the next four months which comprised the busiest period of my life, kept me so occupied that I completely forgot about my illness due to the anthrax injection.

into the flesh He was treading very lightly on that paw It was already badly infected

I co  
will  
nen  
he eats little  
work just as

We called a couple of boys from the adjoining animal houses over to help I made a lasso out of a long length of rope and after three or four tries managed to slip the noose over Arvid's neck one of his forepaws sticking through it (This was necessary because if neither paw had stuck through there was the danger of the noose tightening around his neck) To accomplish the trick we had to dangle the rope through the bars and tease Arvid with it, and the bear being a playful animal instinctively stuck his head and a paw through the loop in a somewhat teasing, somewhat exploratory manner Then we had him We tightened the noose, and then all four of us leaned on the rope, pulled him over and held him tightly against the bars of the cage We then put another rope around the injured paw and two more boys held that paw through the bars so that it couldn't move

While they held tight I went to work on Arvid The operation itself was very simple a local anesthetic injected into the paw so that the bear wouldn't suffer any pain and amputation of the two broken toes Then I made an incision up higher, large enough to drain the infection, and doused the paw with a good strong antiseptic The cage boy was instructed to sprinkle sulfa on Arvid's paw as often as he could get near him and the business was over It wasn't anything to write to one's veterinary school surgeon professor about but as my first operation on a wild animal it stays in my memory more vividly than any I have performed since And for years whenever I had

horses and here it was true of practically every other that I came to know

At 6 30 every morning I reported to the little building, my hospital. Here I would familiarize myself with my medicines and equipment and add to the list of supplies needed not only for winter quarters but for the road. And here, on my second day, came my first "action."

I was looking over the interior of the hospital, wondering how best to convert one corner into a research laboratory, when a voice outside shouted the call which—though I didn't know it at the time—was to become my trade mark.

"Hey, Doc!"

Many years ago the cry 'Hey Rubel' brought circus hands running from all directions. It meant "trouble." Its modern equivalent 'Hey Doc!' brings me running—frequently in all directions. It too usually means trouble.

I opened the door and yelled 'Hey?' It was John Sabo, the menagerie superintendent.

'Doc, I've got a big black bear over there,' he said. 'I thought since you were a little foggy about bears you might want to start learning. Nothing very serious, but he has a broken claw and it's broken all the way up into the flesh. I think it might be infected.'

I drew in my breath but said 'Sure John I'll be there in a minute.' I put some instruments and antiseptics into my bag and started over. This was it. I felt a sort of stage fright, and that feeling stayed with me for a long, long time.

Bears are both unfriendly and very untrustworthy. Trainers and keepers have been mauled and killed by those that for years have acted like trained dogs. Their claws are long and sharp, and they have enormous strength in their multipurpose arms.

We examined the right forepaw of Arvid, the bear, through the cage; it was evident that he had split it well up

jotted in my notebook. Whenever a new pair joins  
 the group, I note the date, sex, and the number of worms.

Sure there is no time for hesitation or research when an animal may be dying, it was encouraging to me to find, 1<sup>st</sup> and again, a point of reference in my former practice I helped with wild animals.

As I was walking back to the hospital that day a question came—Was it a little foolish to walk into a bear's cage even though pretty sure he was too sick and too weak to be dangerous? Evidently he had accepted my manner. A veterinarian very seldom considers his a dangerous profession and yet even with domestic animals there is danger. Some can kick a man's head off with one swift kick, and a bull can be at least as dangerous as any animal known. However, you simply learn the animal's characteristics and when you can calmly and intelligently protect yourself it would seem that the way to get along with wild animals is the way you treat domestic animals—fear none but respect all.

Notes I made that day were useful but there are still unexpected mischances. Sometimes a bear will show no symptoms of worms until it is too late to help him and a handsome menagene polar bear died thus quite recently despite all our precautions.

He had refused food the previous day and this day as he swallowed his first bite of food he went into convulsions and was dead before I could get to his cage. Because his manner of dying made me suspect strychnine poisoning I started to perform a post mortem on him in the cage. When I cut him open I noticed that the intestine just below the stomach was as hard as wood. As I plunged the knife into it, the wall burst and worms sprayed into the air like water from a fire hose.

stage fright over work on a bear, John Sabo would tell me I'd had my "Arvid education"

\* \* \*

My next contact with the bear family happened just two days later, and that also made a lasting impression on me

A trainer had arrived in winter quarters from Germany with twelve trained polar bears. He came running over to my hospital on this particular morning and I gathered from his screams that he was giving me the German equivalent of "Hey, Doc!" I followed him, wildly guessing at what equipment to take with me.

In the cage one of his polar bears was in the midst of terrible convulsions. It struck me—judging again by my dog experiences—that this looked very much like a case of worms. It didn't seem too likely, because these trained animals are nursed like babies by their trainers and are watched twenty-four hours a day by either the trainer or the cage boy. Their diet, too, is carefully regulated. Nevertheless, it did look like worms.

We had the other bears run out of the cage quickly and the trainer and I gave the bear a shot of a sedative. A test proved that my diagnosis was correct and I wormed him immediately. In due time that one bear relieved himself of over half a gallon of long white worms.

I figured that this must be a weakness of polar bears if it could happen to them under such close surveillance so next I gave the other bears the same treatment: a dose of tetrachlorethylene to drug the worms followed an hour later by a strong purgative. (Without the latter the bear might die of the worm poison or else the worms might come to, hungrier and peppier than ever.) Every one of these bears yielded at least a half-gallon of worms. In all my subsequent experiences with sick bears, particularly polar bears, I always suspect worms first.

I jotted in my notebook Whenever a new bear joins the show introduce yourself to him with a test for worms. He may need a good stiff worming.

The first of hundreds of routines had started.

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Apparently the worms, starved from the previous day had hit the upper intestine like a crowd of homeward bound New Yorkers raiding the BMT on a rain, night. Packed in just as tightly, they paralyzed the bear's intestines. Bears, you see, are more vulnerable than subway.

The hospital needed straightening up, supplies needed ordering, I had to get acquainted with personnel and animals and all their various routines, and at the same time things kept happening. One never knew what was coming next. (That is a situation, I might say, that hasn't changed to this day. A one-armed piperhanger is a slouch compared to a two armed circus veterinarian.)

One noon during my first week I stopped at the horse corral for a routine check on two horses with colic, to make sure that the grooms were carrying out instructions (I never permit a horse with colic to be left alone, there is a chance of his lying down, and frequently he will toss around so that an intestine will loop around another, causing what is known as "twisted gut". When the gas hits the obstruction, the intestine ruptures. After medicating, walk him, for hours if necessary.)

I happened to glance out the window and saw that Alfred Court was bringing his animals into the big outdoor cage for rehearsal. I hadn't had time yet to see that act so now I watched, while he brought his animals in, directed each one to a pedestal and then smoothly and apparently effortlessly put them through their very difficult pieces.

He was almost finished when he turned his back for a moment to get a piece of meat as a reward for a leopard. As he did, a tiger sitting on a pedestal just left of a big male lion struck at the lion with his paw. It might have been in play, or it might have been in anger; mixed groups present these mishaps.

The lion's paw grazed the lion's head  
 as he did to  
 his ground  
 as pedestal

Court took one look at the lion and immediately drove  
 the other animals through the chute back into their cages  
 He called me over

"Look at this, Doc, will you?" he said

I walked to the bars of the cage and looked in at the  
 lion. I nodded my head. I saw what Court meant. The jaw  
 was definitely broken

"What do you think?" Court said

"I don't know," I answered. "Have you ever had an  
 operation to mend a "

th :

has  
 has

ready, if  
 of Neml

— but soon

Similar operations had been performed on dogs, and I  
 wondered whether the lion's nature would permit an exact  
 imitation

A squeeze cage was being brought up against the door of  
 the lion's cage. A squeeze cage is small, strong and  
 wheels. One end is a door. The  
 sides are fixed on rollers  
 can gradually be closed  
 out. The object of the squeeze cage is to hold a wild  
 animal immobile while he is being worked on, to keep him  
 from hurting himself—or his doctor! The ends of the



squeeze cage have straight up and-down bars. The sides have closer bars running in both directions in order to keep

squeeze cage. If prodding doesn't work, a small piece of meat placed in the squeeze cage will do the trick. Then the door at the end of the squeeze cage is lowered and the handle wound until the animal is held, not tightly enough to hurt him, but snugly enough so that he won't hurt any one else. A good precaution is to rope the squeeze cage to the animal's cage before opening the doors.

The first thing I had to do was anesthetize. When the lion was safely in the squeeze cage I pricked a vein in his front leg and kept injecting the fluid slowly until he looked drowsy and began going limp. Then the needle was withdrawn and he collapsed on the floor and from that point on we were out of danger—he would sleep from six to eight hours, I believed.

We moved the cage over to the hospital building, opened it up and slid the lion onto the operating table. I examined his jaw and found that the lower jawbone was broken clean through in two places, leaving the entire center section hanging limp.

When a dog has a broken jaw you wire the broken bones together; you then wire the lower jaw to the upper jaw, tightly, to keep his jaws clenched and completely immobile. Then till the bone knits you feed your dog by dripping milk slowly into the corner of his mouth when the flesh is loose.

■ the corner of his mouth. We had to figure out an  
 1st way.

By considering where we must vary the usual plan, I  
 thought of something that might work. Drilling holes on  
 each side of the two breaks, through the lower jaw just  
 beneath the gum line, and using stiff wire, I laced the cen-  
 ter broken section of the jaw to the two outer sections,  
 it would hold the entire lower jawbone solid in one  
 piece to heal, but there was still the problem of keeping  
 him from moving this jaw and at the same time allow-  
 ing him to eat. I took two blocks of wood each about two  
 inches thick. One block fitted between upper and lower  
 molars on each side, leaving room for his tongue between  
 them. More holes were bored to lace wires through the  
 jawbones, top and bottom, his jaws being wired tightly  
 yet separated by those blocks of wood.

This meant that the entire lower jaw was solid in one  
 piece, and both upper and lower jaws were being held firm,  
 but his mouth was permanently open because of those  
 blocks of wood. Because the center section had no wood,  
 we could get his tongue out to lap up milk. The only  
 question that bothered me was whether for the six or eight  
 weeks it would take the jaw to set milk would give him  
 the nourishment he needed.

After we had finished working I sewed him up and

■ in his cage

The operation had taken three hours. Court and I  
 looked at each other and it was hard to tell which of us  
 was more tired. We had shared the nervous strain and,  
 as we had stood in throughout the operation, our physical  
 labor was equally divided as well. My strain was due to the  
 fact that I wanted this operation to be a success. His was  
 due to the fact that a trailer does become attached to his

squeeze cage have straight up and-down bars. The sides have closer bars running in both directions in order to keep the animal from getting his claws through. By bringing the squeeze cage up to the door of the lion's cage and opening both doors it is usually an easy matter to prod him into the squeeze cage. If prodding doesn't work, a small piece of meat placed in the squeeze cage will do the trick. Then the door at the end of the squeeze cage is lowered and the handle wound until the animal is held, not tightly enough to hurt him, but snugly enough so that he won't hurt anyone else. A good precaution is to rope the squeeze cage to the animal's cage before opening the doors.

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idea First of all, two shifts to do the work. Secondly, (though numerical sequences may well be reversed), you would have a difficult time finding men who would be willing to stand alongside a sore lion dripping anything

There was understanding between us, and although in

Just a few days after this operation on Court's lion, I was standing outside the cat barn having my first lengthy chat with Damoo Dhotre. He was wearing a tan T shirt and

During my animal days I had observed how they did every thing but now I wanted to know why they did it

While we were talking I noticed that the cage boys were running some of Damoo's cats from their cages in the cat barn into the chute which connects with the outdoor training ring. There were leopards, panthers, black jaguars, pumas. As each animal was driven forward into the chute, a board was inserted partitioning him off in his own cell.

I had noticed this out of the corner of my eye, and during a break in the conversation, I pointed and said to Damoo "How can

Oh," he said  
work." He snuffed  
me

You will pardon me please. I must work for a while. I will be free in a half hour and we can talk some more." Whereupon he walked the few yards to the cage, opened the door, swung himself in, latched the door after him and then gave the signal to the cage boys to let the cats into the ring with him.

My first wild animal interest was the big cats—and to this day I think it is the greatest. That may be because they are the most terrifying. Actually, I think my interest is a

animals, almost the way a parent does to his child.

The next morning the lion was full of pep and when came up to his cage he was assiduously lapping up all milk the boys could put in his cage. After the third day began pulverizing meat and putting it in the milk. I found that he was able to get most of this meat up with his tongue and to swallow it without chewing. He lost some weight, but he came through that operation fully and recovered completely.

Six weeks later we anesthetized him again, opened his jaw up and removed the wire. The jaw had knit perfectly, the bone was smooth and straight and hard, and we had a completely healthy lion who went back into the ring and performed just as well as he ever had before. He lived four years after that, when he finally did die, not so very long ago, it was from old age.

I had hoped that nothing of this sort would turn up quite so soon, but in looking back on it I think perhaps this operation, coming when it did, is the luckiest thing that happened to me during that period. This was no routine treatment. It was something for which there was little or any precedent. If it hadn't worked I don't know how I would have felt. The fact that it was successful gave me an amount of confidence that I needed badly at that time and which I am sure enabled me to save the lives of countless other animals during the ensuing months.

Alfred Court and I were friends and saw a great deal of each other until he retired quite recently. The friendship dated from this operation. As we worked together, both to the same end, each of us realized—without either of us saying anything—that we were men who were happier when we were working for and with animals. We weren't misanthropes; our relationships with people were excellent and enjoyable—but we were more at home with animals. When there had been a choice in our lives, each of us had always made the decision that kept us close to animals.

218 The male can usually be identified by the tremendous mane on the back of his head and around his neck. The lion is a little less fierce than people imagine. He is a noisy animal, and noisy animals like noisy people are noisy. The lion's head is the lion's head.

219 He can be tamed.

220 He is a nice animal.

Trainers, however, have been attacked by lions; they have even been killed by them. While I was working on this book, Mae Lovar, whom I knew well when she was an animal trainer for Ringling Brothers, was killed by a lion in California. When a lion attacks he will never spring in the leap and land on you the way some of the other cats will. He is more likely to come in rushes, or he will knock you down with his paw. His claws are long and sharp. His paw is heavy and can easily break a man's back or his neck before the animal pounces on him. The lion is most dangerous when males and females are in the ring together.

It was Dumbo who pointed out to me that of all the feline cats, the lion is the only one that travels in pride or groups. The tigers, the leopards, the panthers, all travel either singly or in pairs. That makes an important difference. In the jungle, when a lioness in the pride comes in heat, all the males will fight over her. They will fight until one emerges the victor. He may have left a train of dead, maimed, or simply wounded animals behind. That victorious male and the female go off together mating, many miles away in almost complete hiding, and there they have what amounts to a honeymoon. They stay away two or three weeks. Most of that time they neither hunt nor eat, and should any unfortunate animal or man come in their way, he is quickly disposed of.

That same pride instinct doesn't leave a lion because he happens to be driven onto a ship and quartered in a circus many thousands of miles away from home. Wild animals, we have to be reminded, are never tame. They can be

combination of admiration for their beauty and dignity and the challenge they present to any man, be he trainer, doctor, or cage boy. Visitors to winter quarters by thousands stand in front of the cages of these animals: almost invariably call them by the wrong name. A man will stand in front of a leopard cage and say to his wife, 'Come over here, Mary, and look at these tigers.'

It seemed odd to me that this should be so until I remembered that except in our largest cities there are no zoos and the vast majority of our population never has a chance to see wild animals. That accounted, I suppose, for the tremendous popularity of the circus menagerie when the show went on the road. This was the only zoo many people ever saw, and a considerable zoo it was.

As a result of my friendship with Court and Dhotre and my increasing fondness for the cats, I now began to learn more about them than I had ever known before. I talked to the cat men. I read animal books.

The commonly found cats in our zoos and circuses are the lions, tigers, leopards, black panthers, jaguars, blue jaguars, and then some of the smaller ones such as ocelots, cougars, wildcats. The differences are rather striking.

The lion, of course, has long been known as the King of Beasts. I asked Damoo once whether he felt the title justified.

"Yes," he said, "in my opinion it is. First of all, he looks the part. He looks like a king. He has size, he has dignity, he has what appears to be great pride. Secondly, even though some of the smaller animals can attack faster than he can, the long hair around his neck usually prevents his getting killed by them. I think, Damoo concluded, 'that if there is a king of the jungle, the lion certainly earns the title.'

The lion is one of the few animals that nearly everybody recognizes. It comes from Africa. It is the laziest of the

is The male can usually be identified by the tremendous mane on the back of his head and around his neck. The lion is a little less fierce than people imagine. He is a noisy animal, and noisy animals like noisy people are usually friendly. The lion makes friends easily. He is highly intelligent. He can be taught tricks rather easily, if he is caught young. He is a nice animal to have around.

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That same jungle instinct doesn't leave a lion because he happens to be driven onto a ship and quartered in a circus many thousands of miles away from home. Wild animals, no matter how tamed, are never tame; they can be



trained with patience to do certain tricks but they are still wild in every respect

In the ring when a female lion comes into heat the males as a rule don't fight only because the trainer has them under control. They have been punished in the past for fighting in the ring and remembering that punishment they stay on their pedestals. But they do growl at each other and every instinct urges them to fight. They are extremely nervous. At this time they are very unpleasant. It is at this point that any slight change from the usual voice or movement—anything at all unfamiliar that the trainer does—is likely

another animal make

peated it is likely to

point he will attack either the other animal or perhaps the trainer himself. For that reason many trainers will remove the female from the act during the time she is in heat.

A very good friend of mine Dick Clemens was attacked twice in one recent season by a lion at the time a female in the cage was in heat. Once a lion knocked him down and mauled him. The other time he bit him through the shoulder. At that point the relationship became so strained that Clemens had to take this lion out of his act. Yet in this case the lion was a bottle fed pet of Clemens's. He had been carefully raised and trained by Dick from the time the animal was a cub. Nevertheless when jungle instinct comes to the fore even domestic born lions are blinded to things like loyalty and friendship. He reminded everybody that he was a jungle animal.

Lion acts are sensational because the animals are large because they do look fierce and because a trainer who can train a lion to feign attack can make himself look like a very great hero indeed.

Tigers are the ones with stripes. They are considered by many trainers the most vicious and the least reliable of

Both animals are extremely vicious. They are quicky have mean tempers; but they also have a high degree intelligence and can be trained to do a number of amazing tricks.

Jimoo tells that when he started learning about animal taming, at the age of thirteen, his first trick was to ride tiger around the ring. His teacher told him, "If you can do to get along with tigers, nothing will keep you from being a great animal man."

The tiger is the largest of the cats next to the lion, frequently measuring twelve to thirteen feet from nose to tail, and weighing up to four hundred and fifty pounds. In action, the tiger probably looks fiercer than any of the other cats.

The leopard is a comparatively small, spotted animal.

It can climb on the limb of a tree and leap on any passing prey. Many naturalists contend that he is the best-camouflaged animal in the jungle. He is not much to be feared.

There are two leopards who permit him to carry them around his neck like fur pieces even though they weigh in the neighborhood of one hundred and fifty pounds.

The black panther is actually a freak leopard. Like humans, some animals are melanistic—that is, born with an excess of black pigment, a condition opposite to albinism, or lack of pigment. A spotted leopard may have a litter

containing one or more black leopards likewise breeding two black leopards may produce either black or spotted or both

This is the animal normally called the "panther" (though various countries often refer to some local animals as a panther) If you ever look at this sort of panther closely you will find that although his coat seems to be solid black, he actually contains the same spotting as a leopard in a black of even darker intensity than the rest of the coat He is a freak, and perhaps because he is poorly camouflaged for the jungle the black panther is even quicker than the leopard and is commonly considered the most dangerous animal to work with He is almost impossible to make friends with, and sometimes doesn't play with them, when they are playful—just on the other

hand, develops into a snarling mass of fury within a few weeks after he is born He seems to know that things are going to be tough for one whose color deviates, and literally comes out fighting He gets worse and worse throughout his life, and can be controlled only through sheer will power and patience on the part of the trainer He always remains a sullen and somewhat reluctant pupil

The spotted jaguar looks like a leopard but is native to the Western Hemisphere from Texas to Paraguay He is slightly larger and more heavily built than the Asiatic or African leopard, and his face is larger and more triangular His head and neck have a similarity to a bull's rather than a cat's The jaguar is normally not too bright, although he can be trained, and he has the same kind of meanness that a leopard has It is seldom that one finds trainers going out of their way to work with him

The black jaguar has the same relation to the spotted jaguar as the panther does to the spotted leopard It is a freak It is poorly camouflaged and it is a vicious violent

animal. A trainer very seldom works with black jaguars because it isn't apparent to the audience that he is performing one of the most difficult jobs in wild animal training, and seems therefore not worth while. Damoo Dhotre, however, has a pair of black jaguars—for many years, I believe, the only trained ones in this country. He has taught them to do a number of difficult tricks including that of allowing themselves to be carried around his neck. Considering that Negus, the male, once used to attack Damoo every time they were in the ring together, this is something of a feat. But the average onlooker won't consider it as exciting. What the onlooker doesn't know is that this is something personal.

Negus is the only animal of some hundreds that he has worked with that continued creating trouble for Damoo over a long period of time. Purely as a personal matter, Damoo determined that he was going to subdue and carry his animal on his shoulders before another "dangerous" Indescribable. He can't built of this stress of training.

These were the various types of cats we had when I joined the show. Training any of them takes courage, skill, and patience, and a very long apprenticeship. Putting a mixed assortment of them into one cage at one time takes even more and is the most admired feat of all. All wild animal trainers will admit that once an animal is completely out of control there is nothing a trainer can do. Although there is a common belief that in a pinch a trainer can pull out his revolver and shoot the animal dead, this is certainly never done in the Ringling Brothers circus and I doubt that it is resorted to elsewhere. During my introduction to circus life and animal training I was surprised to learn that there wasn't a gun carried by anyone connected with the organization—unless per-

haps in the pay wagon. The explanation seems logical enough. As Alfred Court said to me once: "What would you do with a gun? With an audience completely surrounding you, if you missed the animal you would undoubtedly hit one or more spectators and he added your chances of missing the animal would be excellent. Remember his attack is sudden. He is coming at you. He is moving. He is in the middle of a leap. He is diving. O - you have come to the point of realizing that a stick can hold him off, he is almost on you. You fire at a quick moving target. The chances of hitting him with one shot out of one try are almost negligible. Even if you are lucky enough to do that, you probably won't save yourself because he continues his leap which he has started. He probably won't die instantaneously because your aim can't be that good on a moving target and so you still get hurt or killed."

Their safety depends on their ability to keep the animals under control or to defend themselves in other ways against any animal out of control.

I spent many hours during those first few months leaning on a fence outside the cat barn talking to Alfred and Damoo. I believe I like cats partly because of my fondness for these two men, but I think it worked the other way too, because I was fond of cats. I instinctively liked these men and was fascinated by their profession.

Both of them seemed in many ways rather paradoxical. Alfred Court not only had the iron nerve and the physical dominance that all animal trainers must have but he was also a very courteous, almost Old World, courtly person. His name might almost have been tailored for him.

Damoo, although short of stature, often impresses his audiences as a giant. He too has an air of physical dominance including a sort of daredevil quality. But Damoo is also something of an intellectual. He is steeped in a book.

ound of Hindu philosophy and Hindu mysticism. Although his life has not included more than five months of formal education, he is one of the most learned men I have ever met. His knowledge of animals is thoroughly practical. I am sure he has a keen interest in the animals he works with.

one of the most enlightening experiences in the world.

Like Tarzan, for whom he once doubled in a movie, Damoo was raised with wild animals. He was born in India and at the age of thirteen had already spent three years in his uncle's circus. Those years were spent as an acrobat, clown, and trick bicycle rider—but at thirteen he began training lions, as a student animal trainer. By the time he was seventeen he was well known throughout India as a daredevil bicycle acrobat and an equally daredevil animal trainer.

He has had many narrow escapes. He has on many occasions been attacked by the animals he has trained.

many times," he says "and every time it was my own fault."

Most trainers agree that the chief fault among trainers and the chief reason for their being hurt is that they become overconfident and are inclined to forget that their animals are still jungle creatures. The trainer who remembers this is always on his guard. The trainer who doesn't eventually gets hurt or killed.

When I would see Damoo or Alfred casually walking into the ring with their animals, practicing their acts, fighting off troublesome animals, and coming out again to have a

frankfurter between rehearsals, I would ask them whether they ever worried about getting hurt someday. It seems impossible that they did, and at the same time it seems unlikely that they wouldn't. What I learned was that apparently with all wild animal trainers there is usually a fear as the rest of us know it. Dimoo has told me many times that he is thoroughly aware of danger, that he knows just what each animal is likely to do to him, but this 'fear' as he calls it, is apparently a mental process, not an emotional one. On the other hand, I have seen animal trainers who on certain days seemed really frightened.

I, myself, on the many occasions when I have gone into a cage with a wild animal, have usually been frightened. Through my own experiences and through talking to wild animal trainers I have evolved a theory that is at odds with that of the medical profession.

I had always heard that animals could "smell fear", that if a human were really afraid of an animal, the animal would know it no matter what the person did to cover it up. I think this is wrong. I think I can provide evidence to make a case for the fact that animals cannot smell fear; that fear is not something tangible. I think animals can sense fear, but I think they get it through the tone of a person's voice and from his actions. I myself have handled horses, mean horses, of whom I was terrified, but by keeping my voice stern and my actions definite, I was able to keep that fact from the animals. Some of these horses, I know, would have kicked me into a corner if they had been able to smell my uncertainty. And I have gone into cages with bears and leopards who would have attacked me instinctively if they had felt I was bluffing my confidence.

One day as I was walking over to the outdoor ring to watch Damoo rehearse his act, I noticed a cluster of people around one of the cages. I ran over to the cage Damoo, who spends all his free hours walking up and down in front of the cages making friends with his animals and keeping an eye on them, had discovered a break in the tail of Lima, one of his pumas.

Together we looked at the tail. Yes, definitely broken.

(We never discovered how this happened. It might have been caused by a neighbor although there were no claw marks. Sometimes when an animal is being shuttled from one cage to another the cage boy swings the iron gate closed behind the animal too quickly while transferring him. A cat, as soon as he is through a gate, often swings around and starts through in the other direction. For this reason the boys learn to work very rapidly closing the gates, and it may have been that Lima got her tail caught and broken that way.)

She didn't seem to be in pain. We decided that together we would run her into the squeeze cage and Damoo could go ahead and work the rest of the animal while I operated. I had never mended a puma's tail before, but of course I had had similar operations on domestic animals.

I had a couple of the cage boys hold her forepaws out through the bars of the squeeze cage and I gave her an injection of Veributal. When she was asleep I opened the back end of the squeeze cage—I didn't bother to remove her because this operation didn't take very long—and set the tail, binding it tightly with a plaster cast which I hoped she wouldn't chew up too soon.

I watched her very carefully for the next few days. Although at first the cast bothered her and she did chew at it a little, she left enough on for protection. The tail stayed in place and the more fact that there was an annoyance "she tended to make Lima conscious enough of the tail to avoid swinging it around or getting it caught in places



that might have injured it. When we removed the her tail was perfectly straight. Damoo put her right into the act and she was an entirely healthy and preable animal.

I stumbled across some amazing facts during those few weeks that big cats have sinus trouble for instance. Alfred Court had suspected this for a long time, and whenever an animal of his appeared sluggish he would me over and we would examine it. Everything I found firmed his suspicion. On certain days, certain of the would hang their heads low, indicating headache. I would be either ill tempered or completely spiritless, pending on the individual animal.

I found that letting an animal rest for a couple of would usually help him recover and frequently, m aspirin in his food would speed the process—30 grains lion, 15 grains to a leopard, 60 grains to a horse. (grains is the adult human dose.)

I knew that horses frequently suffer from sinus tro when a cold is neglected and the animal is worked hard. What apparently happens is that the cold in his

both horses and dogs. In these cases, as with hum aspirin relieves the pain. There have been a few horse which I have actually had to operate to drain the infect but these cases are rare and I do it only when absolu necessary.

I had bought a rather large and as I recall an expen black leather bound notebook, and here it was I be writing down jottings of new information observat theories and just plain facts. Thus I hoped would be us on the road when things were rushed and we were work

on a tight schedule when I didn't have time to sit and chat with trainers and cage boys and menagene men before making decisions

## CHAPTER IV    Elephants                     Have Tender Skins

SOMETIMES one recalls vividly certain experiences without being able to understand the importance of their details or his memory retains them

When I was about five a neighbor took me for a ride in a new and in those days revolutionary automobile I asked for so nothing during the ride—ice cream I think—and he said very positively 'Noisree' I don't know why I've gone on remembering that so clearly but every time I see that neighbor after that, although he was fond of me I went out of his way to do little favors I wanted to run Likewise, I will always remember the day I discovered that elephants have tender skins but this memory I do not understand—and for a very good reason The story starts a bit just before I joined the show

At the end of the tour that year there was a tragedy Atlanta Atlanta was on the swingback toward winter and the show was to play there in October Just at the time John Ringling North was telephoning me

to offer me the job, the circus train was pulling into the Atlanta siding and preparing to unload.

Suddenly, one after another, the elephants dropped on the ground. By the time the boys were ready to walk them to the lot most of the animals were out cold.

The newspapers made a good deal of it at the time because there was something of a mystery attached to it. Obviously, the Ringling Brothers and Barnum & Bailey elephant herd had been poisoned.

A number of the animals died very quickly. The others were saved, although some of them were violently sick for a while. Nobody could imagine who would dislike elephants enough to feed them poison. What made the mystery even deeper was the fact that the elephant herd is never unguarded. It is guarded partly to keep people from teasing or hurting the animals and partly to keep the animals under control. If one elephant should ever break loose and go on a rampage the tendency is for the others to do so.

In this particular case the elephants had been watched very carefully and yet had been poisoned. The surviving elephants were treated on the spot. Post mortems were performed on the dead elephants and it was determined by laboratory tests that arsenic had killed them.

The mystery was finally solved when it was found that not too far from the railroad siding at the previous stop there had been a chemical factory. Among the waste materials which it scattered—it supposed harmlessly—over the surrounding territory was arsenic. When, quite innocently, the elephants' hay had been scattered over this arsenic-covered ground some of the animals had taken enough to kill them. Those that didn't die still took enough to get sick.

The veterinarian who treated the elephants gave a medicine intravenously in the ear. In several cases, some of the

red, cre got out of the vein into the tender tissue of the  
it and abscessed

By the time I joined the circus, we had some thirty ele-  
phants with abscesses behind their ears. Walter McClain  
told the news to me. The elephants had had these ab-  
scesses for some weeks before I got there, but they weren't  
so serious. McClain knew that as soon as a veterinarian  
was hired he could take care of them. He was also smart  
enough not to confront me with a problem like that dur-

..

himself. We chatted idly for thirty minutes or so and then  
he asked, "Doc, you know much about elephants?"

"No, I don't know anything about elephants."

"Doc, we've got some sick elephants."

"That's just fine," I said. "What's wrong with them?"

"Well," he said, "you remember reading about the  
poisoning in Atlanta? A lot of them are still suffering from  
the aftereffects."

"Well, I'll see what can be done about it," I said. "Do  
they let you treat them?"

"Yes," he said slowly. "I think maybe the two of us  
might be able to manage. On the whole they are fairly  
calm while you are treating them—that is, of course, if you  
are stronger than they are."

... unworthy; highly intelligent, yes—probably  
the most intelligent of all wild animals except chimps. But  
also very unpredictable. They have been known to at

tack, for no apparent reason. Despite my qualms, they had to be worked on, however, and I was only thankful an intelligent elephant man like Walter McClain was around to help. I got some of my equipment together and we started walking over to the elephant kraal.

"I'll tell you one thing about these elephant abscesses," Walter said. "Just draining won't be enough. I guess you would call them encapsulated abscesses, because what happens is that a capsule seems to have formed between the cartilage and the skin. Instead of just digging a hole and draining, you'll have to cut and actually remove the whole capsule."

"Well," I said, "let me open one up and I'll soon find out."

The elephant kraal is really a row of open sheds formed into a square with a watering trough in the center. As you enter, you find four solid rows of elephants staring at you from around the sides. Each is chained to a ring embedded in concrete by one hind and one front leg. There is a loose chain strung across in front of each row of animals to keep people from getting too close to them. In the circus, this is known as the "picket line."

The elephant who was in particular pain this day was named Jenny. She was restless. She was moving her head in circles and stamping her feet. Walter and I approached her cautiously, and Walter grabbed the elephant hook.

This is a stick about the length of a broom handle. On the end of it is a small, dull hook. This hook is used by the elephant men in leading and training elephants. It doesn't hurt the animal, but it tugs at her in one direction or another and she soon learns to respect orders given by means of the hook.

Walter got in front of Jenny, holding her trunk up and her head down. I could just about reach the area in back of the ear where it was necessary to operate. As soon as

ched her, Jenny started bobbing her head and weaving  
ate the hook

"Why is she bouncing so much?" I asked Walter anx-  
A "I am not hurting her I am just patting her ear"  
"Touching them can drive them nearly crazy," Walter  
3 "Didn't you know, Doc, that elephants have very  
del skins?"

"Are you kidding?" I scoffed, slapping my hand sharply  
Jenny's gray hide to disprove Walter's joke To my  
amazement Jenny never flinched She even seemed to  
en.

"That's what I mean, Doc," Walter laughed "They love  
firm slap, but a fly or a tickle on their skin will drive  
'em crazy."

I was being crowded by the elephant next to Jenny be-  
cause the elephants on the picket line are chained rather  
one to each other I took out my syringe and, after  
opping the area with antiseptic, injected a local anes-  
thetic just to be sure An anesthetic isn't very good for this  
nd of thing usually, because an animal can fight the in-  
ction as much as the operation and an infected part like  
us isn't too responsive because of the fact that the infec-

Suddenly, without my knowing it the elephant next in  
line—for what reason I will never know—dropped her  
trunk on the ground  
a clip  
crrrr  
I had

and as my weight made it go taut, it sprung me back and I landed flat on my back underneath Jenny

I lay sprawled on the ground, half stunned more so than I have ever been in my life, when Jenny's bladder overflowed. Then I moved so fast that it might be described as bouncing.

Only one thing and there, and to the hook and he forth and laugh immediately and I managed to pull myself together patch up my dampened dignity, and, in a much calmer frame of mind, continue the operation.

I have had hundreds of such operations since but I have never liked them—not one. As a general rule, the abscess becomes as big as a man's hand and I have to make a correspondingly big opening through which to work. The abscess must be picked with silver nitrate to loosen the capsule, and then worked around and around by hand until the entire capsule is loosened and can be taken out through the opening. It is seldom painful to the elephant but they make a terrible fuss simply because they do not like to be handled.

Elephants I fear could never be influenced by the soft feminine touch.

An elephant will invariably toss hay and dirt or whatever he can get his trunk around onto his back. It is seldom you see an elephant without this layer of dirt and hay on his back. The hay and dirt is insulation against the pricks and tickles of flies and mosquitoes, an elephant's worst enemies. This surprised me because I had always thought as most people do, that an elephant has a thick skin. I have learned the hard way that even the thickest of skins has its weaknesses. I have seen also have ter-  
them as to wa-  
thing t

amber when considering walking up to pat a hippo ) An elephant's normal temperature is ninety-nine to a hundred degrees but the temperature of the veterinarian using it always shoots sky high when he is trying to get reading on an elephant The thermometer is about four inches long but it is breakable; and it can be lost—I always tie a string to the one I am using so I can recover it And whenever the performance of temperature taking is necessary I always like to have the elephant trainer handy when the trainer is around the animal has a combination of both fear and confidence He has a fear of doing something he is not supposed to do and the confidence that no harm will come to him Sometimes the trainer himself will take the elephant's temperature More often he will stand at the animal's head and talk to her and just generally keep her calm while I try to get the reading When we do find an elephant with a high temperature and other symptoms of stomach upset we have our work pleasantly cut out for us A horse can be fed a laxative or any other medicine by means of a capsule There's no trick at all to making a horse swallow such a capsule This is not true of an elephant An elephant's mouth can't be held open His teeth are hard and strong and you can't take a chance on putting your hand in his mouth if you are asking him to do something he doesn't want to do He won't allow anything he doesn't want to swallow and his tongue is so powerful that nothing can get past it if the elephant doesn't approve All in all, he is a difficult patient The first time one of Walter McClain's elephants got an upset stomach I decided simply to feed her a laxative through a stomach tube That didn't work It would work on any other animal to get a tube into the stomach you just put it through the nose Well It next became a matter of working with the trainer and holding the elephant's head back and down until I could get the tube into the stomach and then I could feed the laxative





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I lay sprawled on the ground half stunned more scared than I have ever been in my life, when Jenny's bladder overflowed. Then I moved so fast that it might be described as bouncing.

Only one thing saved me from a visit in the circus there and there, and that was the hook and he was do-

forth and laughing fit to kill. His attitude eased me immediately and I managed to pull myself together, patch up my dampened dignity, and, in a much calmer frame of mind, continue the operation.

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handled

Elephants, I fear, could never be influenced by the "soft feminine touch."

An elephant will invariably toss hay and dirt, or whatever he can get his trunk around, onto his back. It is seldom you see an elephant without this layer of dirt and hay on his back. The hay and dirt is insulation against the pricks and tickles of flies and mosquitoes, an elephant's worst enemies. This surprised me, because I had always thought, as I suppose most people do, that an elephant is a thick skinned animal. He simply looks that way. I have learned that hippopotami and rhinoceroses also have tender skins. The worst thing you can do to them is to walk up and touch them lightly. (This is a good thing to re-

ember when considering walking up to pat a hippo )  
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swallow anything he doesn't want to swallow, and his

... I decided simply to feed her a laxative  
through a straw

... to get her to swallow the laxative

(The normal laxative dose for an elephant is one gallon of raw linseed oil )

The elephant was Eva It took about five gallons before we got one gallon into Eva's stomach She would stick her trunk in her mouth, draw out the medicine we had managed to pour in and squirt it all over Walter and me We sloshed around ankle deep in laxative, and decided sadly that as a general routine this was not going to work A new system was called for

I next tried a medicine called Lentin, and this later became my standard elephant procedure Lentin is a laxative that can be given by injection It is extremely strong and has to be administered with great care It immediately starts secretion of all the glands in the body and it works in about ten minutes If there is a danger that the animal may have an obstruction in his intestine, Lentin can kill him

Elephants come down with chills frequently, exactly the way horses do It is easy to medicate a horse with brandy using a dose syringe but an elephant is almost impossible to treat with a dose syringe A dose syringe is long enough to reach way back into an animals mouth, by holding the animals head back and unloading the syringe you can make him swallow Not an elephant When they have chills and won't take brandy I give them an injection of camphorated oil and guaiacol or some similar preparation

The elephants have always been a sort of veterinarian's nuisance factor, because they seldom get anything very serious but they are continually ailing with one little thing or another For instance, very often a tusk will break and the root will have to be extracted (what I do then is to cut back three or four inches and pick out the broken pieces of tusk)

All of our elephants are females because we have found

but the males tend to be troublemakers. Since elephants can't breed very well in captivity, there is no advantage in raising males.

We make it a practice to remove a large portion of the tusk as soon as we get an elephant, so if she should start to make trouble, she will be a good deal less dangerous than she would be if she had the whole tusk. The first day's qualms of tusk is a fantastic: we coax her down on her knees and I take her tusks off about four inches from her cheeks with a hack saw. There is no sensitivity and the elephants don't seem to mind the carpentering in the least!

When Walter McClain was alive—he met a tragic death shortly after I joined the circus—he and I used to talk frequently about breeding elephants. It has proved to be virtually impossible, at least in this country. There have been reports from Germany and Italy that elephants have been bred in captivity and the offspring have lived. As far as I can check this has not happened in this country. There have been a negligible number of cases of elephants having been bred but none where the offspring have lived over thirty days. I think the reason for this is that the elephants must be left alone and must be kept very calm and unexcited before they will breed.

I would like, someday, to buy a good male elephant, pick three or four of our better females and put them off four or five miles from the circus grounds in a large fenced-in place by themselves to get pen by themselves. I would like to see them together with them to talk to them from coming near them, by automobiles—left alone in the wilderness, as it were—I think they might stand a pretty good chance of producing healthy offspring. If so it would be a famous thing in this country and I think the publicity value to a circus would be immense.

Elephant men are among the busiest of animal men, because their charges are probably the only ones in captivity that need manicuring. Elephants have all kinds of trouble with their feet. Their pads get sore, they become infected, they have the same kind of cuticle trouble human beings do, only worse. An elephant man's spare time is usually spent working on cuticles, paring toe nails, polishing, rubbing with antiseptic, and, if the elephant act is going to be extremely fancy that year, actually applying fingernail polish.

Our elephants have to walk on concrete going to and from the lots. We have found that it is rather hard on their feet. To avoid serious trouble, we examine each elephant's feet every day. We look for cracks, breaks, and slight infections, and treatment begins at once before the animal becomes lame. This is good for the animal and we have found that the time spent is decidedly worth our while.

Sometimes our elephant charges turn up with new, unknown diseases. I had a phone call recently from an animal man in St. Louis. He had a trained elephant act and one of the elephants had developed a rather prominent swelling under the belly over an area of perhaps two and a half or three feet. He had asked a couple of local veterinarians but they were pretty much in the dark because there is nothing in horses that corresponds to it. I had run across a minor case only once in the circus but I told him to apply hot towels, to keep the animal's belly cased in hot packs, held on with a sling and to keep constantly wetting them. I also suggested that he give her streptomycin daily for five days. As far as I could guess, it was a toxic condition caused by an infection somewhere in the elephant's system and it was collecting under the skin at the lowest portion of the animal's body. I doubted very much if it was an infection of that immediate area, or that it was

serious infection anywhere else. The trainer treated the animal as I suggested and checked with me by phone every day. Within two weeks his elephant was all right and the ailment never recurred.

Particularly as they grow older, elephants are likely to suffer from paralyzed trunk. A sort of creeping paralysis comes over this vital part, and although the animal can move it the trunk does not have its usual flexibility nor does it have its normal strength. An elephant with paralyzed trunk can feed himself pretty well, but instead of being able to trunk up and drop his food into his mouth, he has to toss his head and catch his meal in mid air.

The minor ailments can usually be put into the hands of the elephant boys, as for instance when their skins get dry and have to be oiled. Once the proper oil has been given to the boy, he can rub it in as well or better than I, because he is there all the time and the animal knows him.

Elephants bite each other's tails, partly out of nervousness and partly because that's the way elephants are. The tails get infected at the bitten part and they have to be treated continually with hot packs and sulfa and other

personally, apparently, she calmed the patient while I treated her. I became, in time, quite attached to Ruth, and she is still my chief assistant in my elephant work.



I'll always remember how I learned about elephants from Jenny, but animal men agree that elephants on the  
ly when the night  
that they and the  
a little while

## CHAPTER V    We Don't Shoot Them Any More

**I LIKE HORSES** I know they are excitable and have to be watched carefully and I will admit they aren't as smart as some of the other animals. They get injured easily and don't take care of themselves too well. But I like them.

It may be that my accumulation of knowledge about them does things for my ego. I don't know what the reason is. It doesn't make any difference. When I am working with horses, no matter how hard the work or how long the hours, I am contented.

I like horses. I know how they act and why. I think I know what goes on in their heads. I know how to tell a horse what I am thinking and I know how to figure out what he is thinking. I have taught horses practically everything you can teach a horse, and I have learned a lot from them too.

A horse can be the most beautiful animal in the world.

if he is healthy and well-cared for. He can be a good companion for the long pull, or a means of escape in a crisis. Horses can save you or ruin you, hurt you or protect you. They surpass all other animals in their ability to respond to human attention. I like them.

During my first weeks in Sarasota I was lonesome—onesome for my horse, a mare named Benny V. She was a colt when I last saw her in Kerrville, the fifth generation of a line owned by my father ever since his marriage. The first animal he owned was Benny V's great, great, great-grandmother. I couldn't have her with me in Shreveport, but here in Sarasota we had all the space in creation. It was a heaven for horses. There was no reason why Benny V and I couldn't be together.

She arrived one Saturday morning. She looked wonderful. I spent all that morning scrubbing and grooming her and then left her in the lower corral with orders that she be turned loose in the pasture for several hours a day. My plan was to leave her here while I was on the road, hoping she would be in good shape for breeding the following year. I didn't breed her now because I wanted to be around when she foaled. It looked very much as though I were soon to be raising a family, and it was a pretty happy feeling. Horses can do that to a man.

On one of my daily inspections of the horses my attention was taken by a big black stallion named Lindy who had a swelling just above his stifle. He was one of the best saddle horses I have ever known. His lameness bothered me a great deal.

Lindy didn't seem to limp very much and the groom had told me he thought the infection was draining. But for some reason I didn't like the look of it. It had hung on far too long.

For two or three days, I tried draining the infection, but one day or other it never seemed to get any better. It was

very hard to examine because, although Lindy was a gentle horse normally and never caused any trouble, the minute I went near his bad leg he would strike out in all directions with what seemed like all four feet at once.

On this day, as on most others, I had more things to do than there was time for. I was always being forced to pull off a lot of routine work for some emergency. By the afternoon, everything seemed to be under control and there was nothing pressing for attention, so I gave Lindy a local anesthetic much against his will and opened up the infection. I took out a piece of stick about two-and-a-half inches long and about three quarters of an inch in diameter. It had apparently run up at an angle in his leg above the knee. No one saw it happen and there had been only the smallest wound. I don't know how long it had been there, but it was easy to see why the infection hadn't cleared.

About a week later, I was a little puzzled to find that the same infection was still draining. It was just as though nothing had been done to it. This time I was seriously worried, so I immediately went for my equipment. I got three of the better grooms to help me, we laid the horse down and I injected a shot of anesthetic that put him completely to sleep. I had decided to open the leg. I went into the wound the way I had before, but this time I continued cutting. This time, I found that the area continued clear on through to the other side of the leg. Before I finished, I pulled out another piece of stick some six inches long. Apparently Lindy had rubbed against something or had fallen, this splinter went almost directly upward in one side of the leg and almost out the other side.

After this, I kept his leg packed for a few days and it healed beautifully. There was not the slightest suggestion of a limp and this pleased me, because for a performing horse it isn't enough to make him well from an economic standpoint, you must make him well enough to perform,

it wouldn't pay to have a horse on which thousands of dollars have been spent for training and be able to use him only for hauling a float. He must go back into his act.

Some of the things that happen to our horses in the process of the amazing tricks they do are rather spectacular; some of the treatments and cures are equally so. But whether the treatment is spectacular or not, the horses, because of their great number and their great value, are a continual source of trouble.

The way my new routine was working out, I was spending about half my time with the horses. Coming out to winter quarters early, I would first make my rounds of the horse corral. Then I would examine any animal that I knew was sick or injured or any animal that had required working on in the last day or two.

Then I would go through the menagerie, the elephant corral, the outdoor menagerie cages, the monkey house, the cat corral, and end up with the cat barn.

Also I was called continually all day and frequently at night to examine animals that weren't acting right. Most of the time these didn't require much actual attention—the cage boys, the trainers, helpers, and the grooms all had the slightest suspicion of an animal was off-color, and they did their work well, but that meant they called me many times when an animal had some slight discomfort that didn't require treating—something that possibly could simply be slept off. It was better that way, but it was hectic and time-consuming.

Furthermore, I was still spending a lot of time talking to people—talking to the cage boys, talking to the performers. I was trying to learn as much about the circus as such as I possibly could, so that I wouldn't be bothered with the little matters of timing and routine when we went on the road and, therefore, could devote all my energy to the animals.

My hospital was coming along fine. The manager ordered anything I wanted in the way of medicine and equipment. I had had new shelves put in, and now too pride in my small and unpretentious but efficient little setup.

So much of my time was spent with the horses because it was a sure bet that once they started traveling there would be illnesses, accidents, fights and other mishaps. I wanted to become so well acquainted with each individual horse that there would be no chance of anything progressing when I could nip it in the bud. I had to operate on the theory of the old time family physician who perhaps knew more about his patients than he did about medicine, rather than the newer type of doctor who knows more about medicine than he does about his patients.

One morning, shortly after a very early breakfast, Jerry, a beautiful, big white bareback horse, was brought into the indoor training ring for rehearsal. Jerry was the Number One horse in a horse-to-horse trick. The two horses cantered around the ring, one immediately behind the other. While they ran, an acrobat standing on Jerry's back, would jump into the air, do a backward somersault and land on the back of the Number Two horse. This was a rather spectacular act and a very difficult one to do. Jerry was a good horse and he had been doing this routine for a number of years.

It was a loud commotion past the door. Tiny, a little girl, came running out calling.

I ran in to find Jerry down on the ground. He had stepped on the ring curb and broken his leg. All bareback horses are trained to follow the ring curb around. I have seldom known one to step on it. One quick look at him and I found that the break was right above the hoof. Leaving him where he was, I ran for my emergency kit,

Then several assistants and I went to work on him to set the bone. Down where the break was, there was very little flesh and I could set it by touch. I prepared some plaster of Paris and made a cast. We walked Jerry back on three legs to his stall, where he immediately lay down.

Jerry was a wonderful patient and that is what saved his life. For the next eight weeks he spent twenty three-and-a-half hours of every twenty four lying down in his stall. He never stood up. When he did stand up, he did it very carefully and he held the injured leg off the ground. When he did lie down he did it as carefully as though he were getting down on a bed of eggs. The bottom of the bandaged leg never even got dirty!

He came through it all beautifully. We cut down on his feed so his lying around wouldn't make him fat and sluggish or colicky, or give him any of the diseases that horses get from eating too much and not exercising enough. Within six months, Jerry was perfectly healthy and walked without a limp. He was never good for bareback work again, though, because he had turned ring-shy. He was always afraid he was going to hit that ring curb, and he was sure enough of himself to be unreliable in the ring. But we did use him for a number of other purposes for a long time after that, and he was always a good horse.

Jerry was replaced in the act by Tom, who had been well trained but even before we got on the road, Tom proved unsatisfactory. During rehearsal one day he hit out with both hind feet for no apparent reason and kicked the head of the Number Two horse. There wasn't much I could do about the injured horse except to ease his pain a little and take care of the flesh wound. His head healed with a very obvious dent in it. For show purposes, we managed to cover it up with a tassel or flower, but that horse became ring-shy in another way. He would no longer go behind any other horse. So we trained him as the

Number One horse to replace Tom, and a new Number Two horse had to be broken in to work with him.

Frequently, when a horse is sick he gets what is known as azoturia. In the old days, we used to call that "Monday morning sickness." It comes of a horse lying around all day Sunday, eating as much as he does when working. Started to work on Monday.

Then he is forced to move; he stands a good chance of rupturing muscle or some internal organ.

When azoturia does come on, although we make every attempt to keep it down by cutting the feed when the animals aren't working, I always give them an injection of something to relax them, and then a calcium gluconate injection to restore their strength. They are usually all right within a couple of hours.

I remember one of the horses that I was working on at the time of the accident. He was a Shetland horse, and he had broken his leg. The veterinarian had put a splint on it, but it wasn't working. So I decided to try something else.

I took him to the hospital and had him X-rayed. The doctor told me that the bone was broken in two places. I decided to try a different method.

I took him to the hospital and had him X-rayed. The doctor told me that the bone was broken in two places. I decided to try a different method. I put a metal splint on his entire leg. The splint, which Dr. Young built out of aluminum, was so made that it fitted him up around his hip and extended down a couple of inches below his hoof. We bored a hole through his hock and bolted that to the splint. It was like a permanent crutch, and that Shetland could actually walk while the break was healing because his weight was on his body rather than on his leg. That is now a common treatment for fractures for a number of four-legged animals. Not so long ago, these same animals would have been shot.

I was learning new things even about horses during these first four months in winter quarters. Things were happening so fast, I often didn't dare wait until somebody called

ril, which was opening day in New York, rehearsals were raising in frequency and intensity and there was an increasing number of the little accidents that always happen when animals get together.

What I learned about horses was the result of having so many horses doing so many different things in one place, at the same time. I developed routine treatments for every foreseeable contingency because only with a well worked-out routine would it be possible to handle all of the animals on the road.

Take the routine of anesthetizing a horse, for example. I never give him Nembutal because it makes horses toss around a good deal while they are coming out of it. It is terribly dangerous for a horse to thrash around. He can hurt himself too easily. A chloral hydrate anesthesia is much preferable. I don't always anesthetize completely, but even a small amount of chloral hydrate takes the fight out of them and removes practically all the pain. While doing a thorough internal operation, I simply use a large dose of chloral hydrate.

During this period it was necessary to castrate a number of horses. I have never liked to castrate horses without good reason but there are times when a male is mean and too hard to handle unless he is castrated. Our experience has been that geldings, or castrated males, make by far the best performers in the ring. Studs, although sometimes good, are likely to be too excitable and unreliable. They are the biters and kickers. Mares are good except when they are in heat then they, too, become extremely wild and are likely to bite and kick. But a well-trained gelding, in the long run, is the best performing horse. Whether



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bling. The danger comes if he tries too hard or if he is forced to move, he stands a good chance of rupturing a muscle or some internal organ.

When azoturia does come on, although we make every attempt to keep it down by cutting the feed when the animals aren't working, I always give them an injection of something to relax them, and then a calcium gluconate injection to restore their strength. They are usually all right within a couple of hours.

I haven't had many bone breaks, luckily. Although most of them can now be treated, the constant traveling makes for complications.

There was a white Shetland I treated in Shreveport. This pony broke his leg rather high up, which required putting his entire leg in a metal splint. The splint, which Dr. Young built out of aluminum, was so made that it fitted him up around his hip and extended down a couple of inches below his hoof. We bored a hole through his hoof and bolted that to the splint. It was like a permanent crutch, and that Shetland could actually walk while the break was healing because his weight was on his body rather than on his leg. That is now a common treatment for fractures for a number of four-legged animals. Not so long ago, these same animals would have been shot.

Having a crisis was only having a crisis. My seven red animals all needed attention every day. Out of a hundred animals, just in the ordinary course of a day, it was not hard to figure the incidence of sickness incidents. As we drew closer and closer to the first of which was opening day in New York, rehearsals were going on frequently and intensely and there was an amazing number of the little accidents that always happen when animals get together.

What I learned about horses was the result of having so many horses doing so many different things in one place, at one time. I developed routine treatments for every foreseeable emergency because only with a well worked-out routine would it be possible to handle all of the animals on the road.

Like the routine of anesthetizing a horse, for example. I never give him Nembutal because it makes horses toss and a good deal while they are coming out of it. It is fairly dangerous for a horse to thrash around. He can hurt himself too easily. A chloral hydrate anesthesia is much preferable. I don't always anesthetize completely, even a small amount of chloral hydrate takes the fight out of them and removes practically all the pain. While doing a thorough internal operation, I simply use a large dose of chloral hydrate.

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the circus learned this from the Western cowboys I don't know But I do know that cowboys will almost never ride a mare, although for different reasons They almost always, to my knowledge, ride geldings

Arthur Konyot, who was training the Liberty Act, came over to see me one day and complained of a horse, a very bright horse and a very good performer, but a very mean animal I examined him and found something that one finds only occasionally in horses he had only one testicle. It was up in his abdomen and had never dropped It had to be brought down by means of what is known as a ridgeling operation

I anesthetized him completely, tied him up, and cut a hole in the region of the groin I got my hand in through the hole and poked around inside until I found the testicle and, with an instrument, removed it

This horse was all right within a very few weeks and every trace of stubbornness left him I made the groom walk him three or four miles a day while he was recovering for I have found that this continued forced exercising of a horse while he is recovering from an operation is probably the best post-operative treatment you can give him (From my reading lately, I gather that medical doctors are finding that very much the same thing holds true for human patients )

There are also some of our horses whom one might call neurotic There is never a year that I don't have one or two that are veritable babies about the slightest illness The smallest touch of colic will make them thrash around and kick and roll in their stalls unless somebody gives them a little attention Then they will calm down and happily take their medicine But the minute they are left alone, they start thrashing around again

This thrashing around is so dangerous, especially if a horse is colicky that I used to do almost anything to avoid

it. And then one day, I found a treatment that has worked beautifully ever since. The medicine I give horses for colic is a very sharp burning mixture. It is usually fed to them in a capsule so that they don't taste it. One day, while eating one of these hypochondriacs I took a little of this medicine out of the capsule, put it in a dose syringe, and dropped it in his mouth. He tossed his head. He poked his tongue out trying to get rid of it but he couldn't. It burned him and he didn't like it. That gave him something to think about. By the time he had forgotten about that, he had also forgotten about his illness. He slept quietly for the rest of the day.

Some of our gentlest horses are among our worst patients. We have a little bay hackney named Sally, a beautiful horse. She usually never causes any trouble and never fights with the other horses. But the minute anyone tries to give her any kind of medicine in the mouth she rears up and paws with her front feet. She could easily kill a careless attendant.

Our horses are temperamental because they perform. They are always keyed up tense, and very nervous when they are being saddled to go into the act and they are always very calm right after it. This is partly due to their training, and partly because trainers have found that high strung and high spirited horses make much better performers than full listless too gentle horses.

There are horses that can't bear to be separated from their mates. This is a characteristic that many people, particularly those with little experience, attribute only to monkeys. My experience with monkeys has been otherwise. This characteristic in fact isn't particularly true of any animal, but I know there are horse couples that can't stand being separated.

That first year we had two American saddle horses that didn't get on well together. They used to fight all the time nevertheless if one was taken out and saddled obviously

to go to work, it didn't affect the other. But if it was to out for any other reason, such as to go to the blacksmith shop or for some other unaccustomed purpose the other would neigh and whinny and break out into a sweat and thrash around until it, too, had to be taken away.

After watching this for a while, I gave orders that whenever one horse had to be taken anywhere, they both should go together. After that, we had no more trouble.

We had two beautiful white Liberty horses, Ackma and Alle. They were mates, but we noticed no particular attachment, though we knew that they never fought as had been stablemates for a long time. One night, Ackma died of a twisted intestine. Alle carried on in a way that I have never seen any other animal do. She whinnied continually. She refused to eat and she refused to sleep. We doctored her, we tried her with new mates, we tried change of scene, we tempted her with every possible food we did everything in the way of medication and psychology to increase her appetite but she simply wasted away. Within two months she died of what can only be described as a broken heart.

There are pests too, of course. We are seldom troubled with the dreaded botfly—which, throughout the South and Southwest, is the bane of a farmer's existence. It lays its eggs on the short hair around the horse's knee and under the chin. The horse is annoyed by the itching and licks the eggs off. The larvae, in turn, hatch in his stomach and attach themselves to the stomach wall. To avoid this we watch for evidence of botfly eggs on horses' legs, and simply mop them off with kerosene. The circus has one groom to every three horses, which gives a chance for the kind of care that almost no farmer can afford.

Every time a new horse arrives, he is wormed immediately. I don't worm our horses every year because it hasn't

necessary. But I do see that every horse is wormed at once in three years.

*Strongylus equinus*—a little roundworm that sucks an animal's blood—worries farmers, and we watch carefully signs of it to treat.

We also have a number of cases of quarter-crack among horses. This means the hoof starts to crack up top, at the coronary part. A wound develops there, an infection sets in, and the hoof crack would, if it weren't stopped, continue all the way down the hoof till the horse was permanently lame. We watch for this because it is common and soon as we see any sign, we take the horse over to our farrier's shop and have his shoes specially made to stop the ailment and allow healing.

Sometimes a horse has to be put away. Sometimes he is old and sick. Sometimes he is badly wounded. Sometimes he has an incurable break or an incurable disease. When things like this happen, we don't worry about the techniques. We destroy the animal, and we know, and everybody else knows, that this is a "mercy killing," that there

is no feeling until the strychnine hits the heart, then the animal dies instantaneously. We bury him in a big hole. We keep our animal cemetery at the far end of our quarters.

There is an ailment among horses called founder or laminitis.

My usual experience has been that founder either responds to treatment immediately, or it can't be treated successfully at all and the horse is in so much pain he has to be destroyed. In this disease, the sole

of the foot drops down below the wall of the hoof and causes excruciating pain

I had two cases of founder during my first weeks in the show. One was a bareback horse. The cure was so complete and so rapid that he was back in the act within a week. The other was a high school horse. A high school

om the  
lancir  
knee

bowing, waving a flag, or walking up and shaking hands with the band leader. There is, of course, perfect direction from the rider. Horses like this take two to three years of continual expert training in order to be good performers.

The trainers, themselves, usually take a lifetime of training. In almost every case I can think of, they have come from families of high school riders and high school trainers. Probably the most famous example in recent years is the great Konyot who was with the circus when I joined it and remained for several years after that. It was one of his horses that came down with founder, and it seemed impossible that any cure could be complete enough to allow him to go back into the act. Because such horses have to maneuver almost the way a human being does, they have to be able to do things that one has no right to expect even a well horse to do.

However, I would try

I injected about a pint of normal saline solution into the horse's vein every three or four days. I also gave him normal horse serum every day, dosed him with alum nitrate every four hours and kept his front feet wrapped in cold compresses. As soon as he showed improvement I stopped the alum nitrate but continued the other treatment. In a few weeks he was back in the act without a trace of limp.

When we were ready to go on tour, it was a safe bet that these horse troubles were just beginning, but this phase

It's work worried me the least. There is always a great deal of satisfaction to be earned by caring for horses, and in my case the helped develop the self-confidence I have for work in other animal departments. To put a new twist on a famous remark I like horses I am glad I like them. Because if I didn't like them, I wouldn't be around them, and I like being around them.

## CHAPTER VI Training the Big Cats

TRAINING WILD ANIMALS has nothing at all to do with my job as a veterinary medical officer in general and I have no desire to become a trainer. I have never trained a wild animal to perform a job, but I have raised two of them. However I developed a very real interest in this profession or art, during my first weeks with the circus, because of the tremendous duties of the job and because of my friendship with the trainers who worked with the show. I learned a good deal about the big cats from Alfred Dore and even more from Damoo Dore. Damoo's approach to animal training is unusual. Having a curiosity as well as a very alert mind he has studied animals both as species and as individuals. Damoo told me most of what I know about training cats



A trainer's job takes a combination of physical agility, mental alertness, and courage. It is naturally dangerous. The trainers who live long are those who remember that a wild animal is never, never tamed, but only trained. Damoo has told me time and time again that whenever a trainer gets hurt, it is always the trainer's fault—and this is not the boasting of a smug man who has happened to be lucky. Damoo has been badly hurt and he has been in danger of death. What he means is that it is bad to become overconfident, to forget that the animals are still wild, still savage, and always on the borderline of getting completely out of control.

Damoo's theory on training a wild animal is similar to what he says, to that of training a child. "The first step," he says, "is to remove the animal's fear. An animal is instinctively afraid of a stranger, and because he is afraid, he will attack."

Damoo spends countless hours in front of a cage cornered by the cage. He talks to the animal with his voice. He stands on the tip of a long pole. Eventually, sometimes after weeks, the animal stops flying into a panic when Damoo approaches.

When he has an animal at that point, he takes him into the training cage, making sure that there are ropes around the animal and that those ropes are held taut by boys outside the cage. Then he plays with him, meanwhile doing everything possible to inspire the animal's confidence. He assures the animal that he is not going to be hurt, he talks to him, he feeds him, and eventually he returns him to his cage.

When the animal has become thoroughly friendly, Damoo starts teaching him simple tricks. With the aid of the boys holding the ropes, Damoo gives him the signal for his sitting on the pedestal. He shows him what is expected of him and rewards him with a piece of meat.

he obeys. After several sessions with the guide rope  
the meat, the animal begins to recognize Damoo's  
and, every time he hears it, he goes toward the

This is, perhaps, an oversimplification of the wild animal

but he will push or prod him and let him know where  
he wants him to go.

whip  
popular  
effect, seldom are animals beaten by a trainer. It stands  
to reason, if a trainer wants an animal to lose his fear, he  
is hardly likely to beat him up every time he comes in

child is beaten into submission at every point, he will have no respect but he will have fear and a grudge. He will wait for the chance to turn on his parents and if he can turn on them, he will turn on someone else. He, too, headed for gangsterdom. In animals, too," he says, "there must be both fear and respect. He is punished only for doing wrong and he must know why he is being punished each time. He must be rewarded for being good and be

instant."

Damoo himself, though he has been attacked again and again, only severely hits an animal when there is a real fight and real danger, when the choice is between hitting the animal and being hurt.

Damoo goes into the cage with five spotted leopards, two pumas, two black jaguars, and two black panthers. One of the panthers still attacks him at the slightest provocation. I have seen Damoo time and again avoid the animal's claw by less than an inch.

I watched Damoo train Negus—the 170-pound black lion who once almost killed him—to be carried around

trick, climbing up to the top of a pyramid with animals. By roping him and feeding him, Damoo finally got him to the point where he would stand on the two stools, his forelegs on one and his hind legs on the other. When the jaguar did this, Damoo would reward him with a piece of meat held out on the pointed end of a stick. After several days of feeding him in this manner, the trainer would pat him on the back to get him used to his touch. Then he went one step further—he put his arm

round Negus' back and exerted pressure on his belly with the palm of his hand. This was to get Negus used to that ~~pressure~~ he would feel when Damoo put his neck under Negus' belly to lift him.

During the first few days of this, Negus was frightened and would lurch out at Damoo and then run for his own shelter. But by slow and patient work, Damoo got to the point where he could get one arm under the animal's chest and lift him two or three inches off the stools. By the end of the month Negus would lie quietly, draped around Damoo's neck.

It is not my purpose to make heroes of these trainers by setting up the melodramas which is inherent in their profession, but too often in the public mind the amount of patience and study and understanding that goes into training wild animals is underestimated. Another common belief is that the animals have an organ removed, certain teeth pulled, or other mysterious operations performed to make them gentle. This is utter nonsense. Other people think that the animals behave because the trainer whips the tail of them. If the people who make these accusations would stop to think for one moment, they would realize that if the whip were used to slash the animal, his fur and skin would hardly be as smooth and unblemished as it invariably is. Every crack of the whip is a cue in the act of the unaccustomed move, and a trainer can be in serious trouble from the feeling of insecurity this might bring to a wild animal.

Some years ago Damoo trained a black panther to attack as part of the act. At a certain signal the animal would attack Damoo and, as Damoo would step backward from the panther would leap and slash out at him with her claws. Time and again, I have seen the panther snatch the tail from Damoo's hand. Damoo's neck, so close to him did the cat come. Menaka (pronounced "Men rak a"), the black cat was a very quick animal. Yet Damoo could be

successful with this kind of trick because he himself is even quicker and has perfect physical control. He has always managed to keep an inch or two within Menaka's reach.

When Damoo went into the army, another trainer took over the act. The new trainer was a very competent, intelligent woman. The first time she performed this with the panther everything went well until the point at which she wanted the animal to stop leaping and go to her pedestal. Damoo had accomplished this by stopping in his tracks and thrusting his head out at Menaka. This woman trainer was not entirely familiar with Menaka and wasn't quite sure of her. Instead of stopping absolutely still, probably afraid that the animal might try another leap, she took still another step back. But this was exactly the wrong thing to do. Menaka knew this at once, jumped and she mauled her badly.

In a mixed group all the natural jungle enemies are expected not only to sit quietly as neighbors, but actually come in close contact with each other during many of the tricks. A mixed group trainer has to be good, but even he is sometimes attacked, so complete absence of fear on the part of these trainers is something that never fails to amaze me.

For myself, I can't claim to be thoroughly unconcerned when working on a wild animal. On the occasions when it was necessary to work on an animal that was not strained and not unconscious, I have had a strange tingling in the pit of my stomach and the symptoms of a heart might be water on the knee. But the trainers dare not be afraid. In rare cases when a trainer has had reason to become so, he usually has found it expedient to change profession.

Damoo is thoroughly aware of all the dangers, but at the same time he has the kind of confidence in himself that makes him feel master of whatever emergency arises.

Court had the same confidence. He lived to retire. Trainers who have been in the business for many years expect to reach a ripe old age. Many are sure that, if it doesn't, it will be because of a little bug rather than a animal.

Damoo has a beautiful spotted leopard named Sonya.

I asked Damoo once whether, despite the fact that he

was so excited, and he knows that he cannot trust

"Now, then," I asked him, "do you protect yourself when you do this trick?"

"If you will watch me carefully," said Damoo, "you will see that some days, on the days when Sonya is upset, I hold my chin down."

If this makes your blood run cold or bring duck bumps to your skin, you were not born to be an animal trainer. That is the stuff of which successful cat trainers are made. I don't believe what they have can be developed. We are either that way, or we are not.

Cat training is such a fascinating art I never miss a chance to watch one of the trainers working his animals.

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whether it is running through an old act or breaking the for new tricks. Since some of the best trainers in the world have worked and do work with the show, I have had chance to study them all at close range.

There are two kinds of animal men. There is a world of difference between them, although the public usually is unaware of any distinction. The first group are the real trainers. They take raw animals out of the jungle, break them, teach them tricks, and perform with them. There are the men like Court, Dhotre, Proske, Clemens, Mathie and a few others. Then there are the men who perform with animals already broken and trained. They simply repeat a given set of signals in order to make the animal perform. One of the most famous of all American "trainers" belonged to this group. He even went so far as to employ a man to train his animals for him. The Hagerbeck Zoo in Germany has for many years trained entire acts and then sold them to "trainers" who were actually men performers.

It is an interesting fact that most cat trainers prefer to work with jungle raised animals rather than with bottle-fed animals. The reason they give is that pet bottle fed animals are pampered when they are babies and are seldom punished. By the time they get big enough to be dangerous, it is too late to start punishing them. They are so completely unafraid that even hitting them lightly, which is enough to bring a young wild animal under control, will only make them savage and bring on an attack. Trainers feel if they, themselves, raised an animal on a bottle, they would be sure to start disciplining it early so the animal would respect them and would respect their orders at a later date. But if the animal had been raised as is a pet, by the time it was six or eight months old it would be much more dangerous than a jungle raised animal, because it would have no fear and would only become bitter if then punished for the first time.

There are many legends current about the experiences of animal trainers. One popular story which has been attributed to any number of trainers is about the man who was once attacked by one of his animals, one of the other animals then saving his life. I have asked a number of trainers about this unlikely story and have found none of

the act. Before he got around to replacing him, the lion suddenly struck out at Damoo, ripped his arm badly, and Damoo stepped back, lunged at him. He knocked Damoo down, and then, Damoo says, another of his lions which happened to be directly behind him leaped over his fallen body and landed on the attacking lion. The two lions started fighting. This gave Damoo a chance to bring both animals under control. However, he says there is no evidence that the

led to the detriment of the trainer, where the other animals became excited by the attacking one and all attacked the trainer. When this happens, the show has only one choice and that is to find a replacement for the lioner at the moment.

As for the cat trainers no doubt get a certain satisfaction out of their difficult achievement. But as for me—the training ring is a nice place to visit but I'd hate to make a living in it.

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experience of this kind in school was not at all

increase per month

2

10

12

Panthers, and bears

to come up with lions,

Back in my circus initiation period, we had an old lion named Samba. He was past his performing days and was hanging out his years in the menagerie. Never having done any dentistry on a wild animal, I somehow had the confident feeling that perhaps, if I lived a very good life, I could never have to. But Samba didn't know about my confidence and he wasn't a judge of how lions were lived. He was just an old lion having a lot of trouble eating. The keeper called me over one day, to ask me to watch the way this lion fed. Samba would tear off a piece of meat savagely, and then chew, and chew, and chew. He seemed never to finish one bite of meat. I watched him for a while and then realized that apparently the meat was sticking back in his molars. It couldn't possibly stuck there unless those teeth were in very bad shape. There was only one thing to do - check those teeth.

We ran Samba into a squeeze cage and gave him a small injection of Nembutal. (For a short operation like this, there was no point in keeping him asleep for eight or ten or twelve hours.) I gave him just enough Nembutal until he went down and his jaws were relaxed. I or the next couple of hours he could do me no harm. This was all the time I needed to fix him up.

The menagerie superintendent helped me put him on the operating table to examine him. Two of his lower molars were very badly rotted. They were broken and so decayed they had almost caverns in them. Extracting a molar tooth isn't too much different from extracting a molar tooth. The gum is broken away from the tooth, the tooth is loosened then extracted. The only difficulty

## CHAPTER VII This Won't Hurt Much

MY PASSIONATE DISLIKE of dentistry started in veterinary school. One day an old Negro farmer brought a horse over to us and offered him for sale for one dollar. Some of the horses that these poor farmers bring in at the end of the season are old, some are very old. It had been many years since this horse had been very old. Only once since then have I seen anything so decrepit, and that was a horse that a farmer in Ohio tried to sell me as the circus was passing through.

Old as this horse was, the school bought him and the students embarked on a campaign to return him to health if not to youth. I volunteered to take over at his dentistry because extraction is very easy in an old horse and I thought I would be getting away with something. I was

He had two bad teeth in the back of his mouth. I removed my shirt and went to work with real enthusiasm, certain that I remembered all my lessons in dentistry. This was an easy job. The boys who were assigned to the rest of his anatomy were really going to have tough going.

Though I established some kind of school record for extracting two teeth in a minimum length of time, for the rest of my years in vet school, it was impossible to live down the fact that one of the teeth I pulled happened to be the wrong one.

Like most kids, I hated going to the dentist—maybe more than most kids, because I had to go more often than most. A dislike for dentists to start with, and by

I've heard of, such as ours. As a result, tooth decay is nonexistent in horses. Horses do have other tooth troubles. Blind tooth is not common. This is a case of two alternate teeth growing side together that the middle tooth has no room to grow down. When it doesn't it simply grows backwards. The root pushes its way upward until it causes serious trouble. A standard method for treating blind tooth is not

to cut and bit, until you reach the root of the offending tooth. Then, with a little dental punch, you simply knock the tooth back into the mouth, and then pack the wound. It has always been interesting to me to note an animal's reaction to pain. Take the horse—this wound I have de-

scribed. As it is nearly healed, I charge the packing and irrigate. You would expect that the tissues would be sensitive, at least to some extent. Yet I can't recall a single case of a horse seeming to mind in the least this daily changing packing, and even probing to determine the condition of the wound.

Extracting a horse's tooth becomes easier as the horse gets older. As a horse ages, his teeth become longer, and they do, the root becomes shorter. Horses frequently lose horse teeth. These are extremely easy to extract. They occasionally split their teeth, but this, too, causes no trouble except to the horse.

is that the root of a lion's tooth extends into the gum for about an inch and a half and it is ticklish to make sure the entire tooth comes out without breaking off and leaving a splinter of root to cause future infection

Once Samba awoke, I wouldn't have been able to look at his mouth to check its condition each day. While working, explained each step to the menagerie superintendent who it seemed, had never witnessed any but the most routine work on any of his animals and was fascinated by this procedure. He asked questions continuously and I found that my answers helped clarify my own thinking, as well as his. We took the teeth out and packed the gums. A few minutes we changed the packing. Meanwhile, it was a good chance to study the rest of Samba's mouth and this was all pretty new to me, too.

We both must have lost track of the time. That is the only way I can explain it. For, while I was pointing something in the lion's mouth, his jaws, which had been hanging loose under the anesthetic, suddenly snapped shut. We both reacted instantly. We slid him back into his cage. After a while, Samba was sitting up, also dripping wet.

When Samba woke up, he was on a cheap drunk which is the normal result of taking Nembutal as an anesthetic. We put him back into his cage, and after staggering around for a while he lay down and went into a normal sleep. When he awoke he was not only eating normal but was much healthier and active than he had been for months.

Considering the trouble they give otherwise, horses are not too prone to tooth trouble. Their teeth almost never decay. I have a rather obvious theory that it is because a horse's tooth is a very solid bone. I don't know if that is not

is when a doctor, in all innocence, gently touches

plants' tusks cause continual trouble. We have found  
able to saw off tusks, because elephants do fight;  
then an elephant fights, she would be quite capable  
pug an opponent to shreds with those sharp tusks  
ven though the tusk has been cut off, frequently an  
rat will break what remains. The problem then is to  
a local anesthetic, then pick out as many fragments  
tusk as can be found in order to prevent infection

and measure the average length of the root of the  
is about fifteen inches. The wall of the tusk at the  
end is nearly as thin as an eggshell

e had a Russian bear in an act. One day the trainer  
his wife stopped me on the path to the hospital to ask  
to take a look at the bear. He was eating poorly, they  
me, and there were signs of wildness in what was  
true a very gentle animal. (The "gentle" was their  
name. Gentleness is something bears are not noted for  
ference, maybe. But not kindness.)

he walked into the cage. The trainer and his wife  
led right in purposefully, and I couldn't do anything  
follow without making an issue of it. The train  
the bear's head and his wife held the animal's mouth  
2. Then they looked at me and both assured me  
I'd work unmolested and safely.

' was almost like a clown routine. I was more than  
doubtful. Although I have no particular ambition



watch how he eats and also how he digests his food. If both functions are normal, the chances are that the horse's teeth are all right.

Once a year, I examine all the horses for rough teeth. The trouble is that their upper molars outside and their lower molars on the inside have sharp points are painful as the horse chews his food. The treatment here is very simple. I simply prop his mouth open with an instrument made for the purpose and "float" his teeth. The float is an instrument which looks like a wood rasp, the operation is simply a matter of filing the teeth down until their points are dull.

I have seen dogs with beautiful inlays and very carefully designed fillings. My own hunch is that this is done largely for show, or perhaps for practice. Never in my experience has it been necessary to fill a dog's tooth. If teeth are either healthy or they are split or broken and have to be extracted.

Although elephants have teeth, they seldom cause trouble. An elephant has enormous molars. Each tooth is as big as the palm of a man's hand. I had to pull one once, but the tooth was very loose. Since my knees were precisely in the same condition, it was lucky that some careful digging with a long handled pair of extractors lifted the tooth effortlessly. I should not relish the job of pulling a giant molar, but thanks to elephant ingenuity and intelligence, I very likely may be spared. An elephant, when she is troubled by a tooth, will pull it herself. I have watched the operation and it is amazing. She puts her head down until she can grasp her foot chain in her mouth. Then working the chain back to and under the offending tooth she jerks her head back and knocks the tooth out. Sometimes she has to try several times before the tooth gives and she keeps trying. There isn't as much crying and

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the

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Once a year, I examine all the horses for rough teeth. One thing that happens regularly is that their upper incisors develop jagged corners on the outside and their lower molars on the inside. These jagged points are painful when the horse chews his food. The treatment here is simple. I simply

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otherwise a very gentle animal. (The "gentle" was theirs,  
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over to us. His powerful build and perfect proportions had deceived me, I was surprised now to find him almost head shorter than I.

'Mr Dhotre,' said North, "this is Doc Henderson."

Tremendous force of personality was evident in his face. Then, when he smiled in greeting, it was as though all the lights were suddenly switched on in a darkened house. His were the whitest teeth I have ever seen.

I was to become very friendly with Damoo Dhotre, one of the most extraordinary combinations of personality I have ever seen in a human being. Damoo had been training animals since he was thirteen years old, which gave him at this time something more than twenty-five years as an animal trainer. He was strong and muscular. He combined the qualities of the physical daredevil and the Hindu philosopher and mystic. He studied his animals thoroughly and he knew them theoretically as well as personally. Damoo was a person who never offered advice but when asked would pour forth a bottomless store of practical help. ('But I will tell you something,' he would say, "I believe that every time anyone gets hurt by a wild animal it is his own fault. That goes for trainers too.")

"What about doctoring these animals?" I asked him now. "Do they require very much?"

'Oh, yes,' he said, mainly because they fight so much. When you put different kinds of animals—natural enemies—in the ring, they fight. All the time they fight—and they get hurt. Sometimes badly.'

'Is doctoring them as big a problem as I imagine?' I asked.

No," he said, 'you call me when you have anything to do on my animals and I promise to keep them quiet for you.' And then he added what I had half-expected. 'I will be difficult for you in the beginning, but it isn't for me because the animals know me. We are friends.'

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those wild animals would also be doctored

The next morning North was on the job even before I checked in. He called me into his office.

"Doc," he said, "Tim the black bear died last night. I didn't think he was ~~as~~ sick as all that or I would have used you."

"I am sorry to hear that, Mr. North. I really should have examined him yesterday. Do you mind if I perform a post mortem?"

"I wish you would."

The animal was brought to my operating table where North stayed to watch. I opened the bear and cut straight for the liver. And there sure enough growing right on top of it, was a tremendous tumor.

"Nice guess, Doc."

I couldn't restrain a grin. If a knowledge of dogs and cats and horses and pigs could really be transferred to their wild counterparts so easily, then maybe I was going to be able to keep these seven hundred wild animals in pretty good physical condition.

Before the day was out, North invited me into one of the streamlined railroad cars, took a key out of his pocket and opened the door.

"This will be your stateroom on the road," he told me—and when my surprise must have showed, "How did you think you were going to travel—cattle car?"

I laughed embarrassedly, probably making it very obvious that that was exactly my thought.

"We do have a cattle car for you," he added, "in case

grown adult. Not so with these—except for the horses, the were twice as large as I recalled. What's more, some had snarled, some had shown their teeth, worse still more simply stood with heads down and shrewd eyes fixed on me.

Through an archway of the horse corral, Mr North indicated a small white shed which, on one side, had little horse corral of its own.

'That one is all yours Doc' he said. I read the sign on its door: *Veterinary Department*. Suddenly, I was no longer the fascinated visitor but a blooded member of the circus family—not only a Doc but a whole department.

It seemed as though trumpets should blare me across my new threshold but the only blare I heard came from the snores of a boy sleeping on a cot in the far corner. This boy once awakened was introduced as my assistant.

from early morning until late at night and frequently eight long. I was on the circus grounds. This was not use of love of hard work or long hours—I hadn't been from Texas long enough for that. I was plunged long into an overpowering job. I wanted to learn it very rapidly and I was learning that for me there a lot to learn.

For instance, once I pointed my finger—"What is that animal there?"

The menagerie superintendent looked over and laughed. "A cinnamon bear—and they aren't so little. That happens to be a baby."

I laughed too. Not until then I had thought vaguely that bears came in two varieties—bears and polar bears. A circus owned five different kinds.

\* \* \*

The show had just come into winter quarters for the next four months all would first rest then the performers would start practicing, new tricks and in many cases new acts then for about a month the entire group together with new imports would be co-ordinated into a finished performance for the road.

Although now there was no daily packing and unpacking and while having all the animals permanently housed for the period was an advantage, life was busy and sometimes hectic.

The animals were not used to the new surroundings. The animals were not used to the new surroundings. The animals were not used to the new surroundings.

Speak with vomiting because of the ocean trip and nervous because of their new surroundings. Animals I have found are particularly sensitive to their neighbors. Put one next to a different animal from the one he is used to and you are likely to have trouble. I had known this to be true of



you have a very sick animal who needs sitting up with the road."

He described to me what was to serve for years as a hospital car. It was a car with just blank stalls in it—good sized stalls, with equipment to keep animals from falling from train motion or illness—and sleeping quarters for me or one of my assistants at the far end.

"That is for you when you want to use it or need to use it," North said, "otherwise, this stateroom is where you live."

It proved more than comfortable living. Pullman travel even at its best could never be as homey as I was to find that circus setup.

### CHAPTER III Starting—with a Roar

IT MIGHT HAVE BEEN the Florida climate, it could have been the vigorous routine of life in the circus, or perhaps the complete change of every detail of my way of living effected the cure. Not being an animal, I don't pretend to be able to diagnose for myself. The fact remains that the next four months which comprised the busiest period of my life kept me so occupied that I completely forgot about my illness due to the anthrax injection.

into the flesh. He was treading very lightly on that paw. It was already badly infected.

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We called a couple of boys from the adjoining animal houses over to help. I made a lasso out of a long length of rope and after three or four tries managed to slip the noose over Arvid's neck, one of his forepaws sticking through it. (This was necessary because if neither paw had stuck through there was the danger of the noose tightening around his neck.) To accomplish the trick we had to dangle the rope through the bars and tease Arvid with it, and the bear being a playful animal instinctively stuck his head and a paw through the loop in a somewhat teasing, somewhat exploratory manner. Then we had him. We tightened the noose, and then all four of us leaned on the rope, pulled him over and held him tightly against the bars of the cage. We then put another rope around the injured paw and two more boys held that paw through the bars so that it couldn't move.

While they held tight I went to work on Arvid.

The operation itself was very simple: a local anesthetic injected into the paw so that the bear wouldn't suffer any pain and amputation of the two broken toes. Then I made an incision up higher, large enough to drain the infection, and doused the paw with a good strong antiseptic. The cage boy was instructed to sprinkle sulfa on Arvid's paw as often as he could get near him, and the business was over. It wasn't anything to write to one's veterinary school surgery professor about, but as my first operation on a wild animal it stays in my memory more vividly than any I have performed since. And for years, whenever I had

horses and here it was true of practically every other that I came to know

At 6 30 every morning I reported to the little building, my hospital. Here I would familiarize myself with my medicines and equipment and add to the list of supplies needed not only for winter quarters but for the road. And here, on my second day, came my first "action."

I was looking over the interior of the hospital, wondering how best to convert one corner into a research laboratory, when a voice outside shouted the call which—though I didn't know it at the time—was to become my trademark.

"Hey, Doc!"

Many years ago the cry "Hey, Rubel" brought circus hands running from all directions. It meant "trouble." Its modern equivalent "Hey, Doc!" brings me running—frequently in all directions. It too usually means trouble.

I opened the door and yelled "Hey?" It was John Saba, the menagerie superintendent.

"Doc, I've got a big black bear over there," he said. "I thought since you were a little foggy about bears you might want to start learning. Nothing very serious, but he has a broken claw and it's broken all the way up into the flesh. I think it might be infected."

I drew in my breath but said "Sure John. I'll be there in a minute." I put some instruments and antiseptics into my bag and started over. This was it. I felt a sort of stage fright, and that feeling stayed with me for a long, long time.

Bears are both unfriendly and very untrustworthy. Trainers and keepers have been mauled and killed by those that for years have acted like trained dogs. Their claws are long and sharp, and they have enormous strength in their multipurpose arms.

We examined the right forepaw of Arvid, the bear, through the cage; it was evident that he had split it well up

I jotted in my notebook Whenever a new bear joins  
 1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000

where there is no time for hesitation or research when an animal may be dying it was encouraging to me to find, and again, a point of reference in my former practice helped with wild animals.

As I was walking back to the hospital that day a question arose—Was it a little foolish to walk into a bear's cage even though pretty sure he was too sick and too weak to be dangerous? Evidently he had accepted my manner. A Canadian very seldom considers his a dangerous profession and yet even with domestic animals there is danger. One can kick a man's head off with one swift kick, and a bull can be at least as dangerous as any animal known. However, you simply learn the animal's characteristics and then you can calmly and intelligently protect yourself. It would seem that the way to get along with wild animals is the way you treat domestic animals—fear none but respect all.

Notes I made that day were useful but there are still unexpected mischances. Sometimes a bear will show no symptoms of worms until it is too late to help him and a handsome menagerie polar bear died thus quite recently despite all our precautions.

He had refused food the previous day and this day as he swallowed his first bite of food he went into convulsions and was dead before I could get to his cage. Because his manner of dying made me suspect strychnine poisoning I started to perform a post mortem on him in the cage. When I cut him open I noticed that the intestine just below the stomach was as hard as wood. As I plunged the knife into it, the wall burst and worms sprayed into the air like water from a fire hose.

stage fright over work on a bear, John Sabo would tell me I'd had my "Arvid education"

\* \* \*

My next contact with the bear family happened just two days later, and that also made a lasting impression on me.

A trainer had arrived in winter quarters from Germany with twelve trained polar bears. He came running over to my hospital on this particular morning and I gathered from his screams that he was giving me the German equivalent of "Hey, Doc!" I followed him, wildly guessing what equipment to take with me.

In the cage one of his polar bears was in the midst of terrible convulsions. It struck me—judging again by my dog experiences—that this looked very much like a case of worms. It didn't seem too likely, because these trained animals are nursed like babies by their trainers and are watched twenty-four hours a day by either the trainer or the cage boy. Their diet, too, is carefully regulated. Nevertheless, it did look like worms.

We had the other bears run out of the cage quickly and the trainer and I gave the bear a shot of a sedative. A test proved that my diagnosis was correct and I wormed him immediately. In due time that one bear relieved himself of over half a gallon of long white worms.

I figured that this must be a weakness of polar bears if it could happen to them under such close surveillance so next I gave the other bears the same treatment: a dose of tetrachlorethylene to drug the worms followed an hour later by a strong purgative. (Without the latter the bear might die of the worm poison or else the worms might come to, hungrier and peppier than ever.) Every one of these bears yielded at least a half-gallon of worms. In all my subsequent experiences with sick bears, particularly polar bears, I always suspect worms first.

I jotted in my notebook Whenever a new bear joins the show introduce yourself to him with a test for worms. He may need a good stiff worming. The first of hundreds of routines had started.

Since there is no time for hesitation or research when an animal may be dying it was encouraging to me to find, time and again a point of reference — — — that helped.

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the  
is. Evidently he had accepted my manner. A veterinarian very seldom considers his a dangerous profession, and yet even with domestic animals there is danger. A horse can kick a man's head off with one swift kick, and a bull can be at least as dangerous as any animal known. However you simply learn the animal's characteristics and then you can calmly and intelligently protect yourself. It would seem that the way to get along with wild animals is the way you treat domestic animals: fear none but respect all.

Notes I made that day were useful but there are still expected mischances. Sometimes a bear will show no symptoms of worms until it is too late to help him and a handsome menagene polar bear died thus quite recently. Despite all our precautions he had refused food the previous day and this day as he swallowed his first bite of food he went into convulsions and was dead before I could get to his cage. Because of the manner of dying made me suspect strychnine poison. I started to perform a post mortem on him in the morning. When I cut him open I noticed that the intestine below the stomach was as hard as wood. As I plunged my knife into it the wall burst and worms sprayed into the water from a fire floe.

Apparently the worms, starved from the previous day had hit the upper intestine like a crowd of homeward bound New Yorkers raiding the BMT on a rain, night. Packed in just as tightly, they paralyzed the bear's intestines. Bears, you see, are more vulnerable than subway.

The hospital needed straightening up, supplies needed ordering, I had to get acquainted with personnel and animals and all their various routines, and at the same time things kept happening. One never knew what was coming next (That is a situation, I might say, that hasn't changed to this day. A one-armed piperhanger is a slouch compared to a two armed circus veterinarian.)

One noon during my first week I stopped at the horse corral for a routine check on two horses with colic, to make sure that the grooms were carrying out instructions (I never permit a horse with colic to be left alone, there is a chance of his lying down, and frequently he will toss around so that an intestine will loop around another, causing what is known as "twisted gut". When the gas hits the obstruction, the intestine ruptures. After medicating, walk him, for hours if necessary.)

I happened to glance out the window and saw that Alfred Court was bringing his animals into the big outdoor cage for rehearsal. I hadn't had time yet to see that act so now I watched, while he brought his animals in, directed each one to a pedestal, and then smoothly and apparently effortlessly put them through their very difficult pieces.

He was almost finished when he turned his back for a moment to get a piece of meat as a reward for a leopard. As he did, a tiger sitting on a pedestal just left of a big male lion struck at the lion with his paw. It might have been in play, or it might have been in anger; mixed groups present these mishaps.

the lion's paw grazed the lion's head.

instantly

he did not

ground

pedestal

Court took one look at the lion and immediately drove the other animals through the chute back into their cages. He called me over.

"Look at this, Doc, will you?" he said.

I walked to the bars of the cage and looked in at the lion. I nodded my head. I saw what Court meant: the jaw was definitely broken.

"What do you think?" Court said.

"I don't know," I answered. "Have you ever heard of a lion's jaw being broken?"

adly, it

the lion

Similar operations had been performed on dogs, and I wondered whether the lion's nature would permit an exact imitation.

A squeeze cage was being brought up against the door of the lion's cage. A squeeze cage is small, strong and without wheels. One end is a door. The sides are fixed on rollers.

The rollers can gradually be closed. The door is opened out. The object of the squeeze cage is to hold a wild animal immobile while he is being worked on, to keep him from hurting himself.



squeeze cage have straight up and-down bars. The side have closer bars running in both directions in order to keep

squeeze cage. If prodding doesn't work, a small piece of meat placed in the squeeze cage will do the trick. The the door at the end of the squeeze cage is lowered and the handle wound until the animal is held, not tightly enough to hurt him, but snugly enough so that he won't hurt anyone else. A good precaution is to rope the squeeze cage to the animal's cage before opening the doors.

The first thing I had to do was anesthetize. When the lion was safely in the squeeze cage I pricked a vein in his front leg and kept injecting the fluid slowly until he looked drowsy and began going limp. Then the needle was withdrawn and he collapsed on the floor and from that point on we were out of danger—he would sleep from six to eight hours, I believed.

We moved the cage over to the hospital building, opened it up and slid the lion onto the operating table. We examined his jaw and found that the lower jawbone was broken clean through in two places, leaving the entire center section hanging limp.

When a dog has a broken jaw you wire the broken bones together; you then wire the lower jaw to the upper jaw, tightly, to keep his jaws clenched and completely immobile. Then till the bone knits you feed your dog by dripping milk slowly into the corner of his mouth while

■ the corner of his mouth. We had to figure out another way.

By considering where we must vary the usual plan, I thought of something that might work. Drilling holes on each side of the two breaks through the lower jaw just beneath the gum line and using stiff wire, I laced the broken section of the jaw to the two outer sections, as it would hold the entire lower jawbone solid in one piece to heal but there was still the problem of keeping him from moving this jaw and at the same time allowing him to eat. I took two blocks of wood each about two inches thick. One block fitted between upper and lower molars on each side, leaving room for his tongue between them. More holes were bored to lace wires through the jawbones top and bottom his jaws being wired tightly and separated by those blocks of wood.

This meant that the entire lower jaw was solid in one piece, and both upper and lower jaws were being held firm at his mouth was permanently open because of those blocks of wood. Because the center section had no wood, he could get his tongue out to lap up milk. The only question that bothered me was whether for the six or eight weeks it would take the jaw to set milk would give him the nourishment he needed.

After we had finished working I sewed him up and

#### MESSAGE

The operation had taken three hours. Court and I looked at each other and it was hard to tell which of us was more tired. We had shared the nervous strain and since he assisted me throughout the operation our physical labor was equally divided as well. My strain was due to the fact that I wanted this operation to be a success. His was due to the fact that a trainer does become attached to his

squeeze cage have straight up and-down bars. The sides have closer bars running in both directions in order to keep the animal from getting his claws through. By bringing the squeeze cage up to the door of the lion's cage and opening both doors it is usually an easy matter to prod him into the squeeze cage. If prodding doesn't work, a small piece of meat placed in the squeeze cage will do the trick. Then the door at the end of the squeeze cage is lowered and the handle wound until the animal is held, not tightly enough to hurt him, but snugly enough so that he won't hurt anyone else. A good precaution is to rope the squeeze cage to the animal's cage before opening the doors.

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When a dog has a broken jaw you wire the broken bones together; you then wire the lower jaw to the upper jaw, tightly, to keep his jaws clenched and completely immobile. Then till the bone knits you feed your dog by dripping milk slowly into the corner of his mouth where the flesh is loose.

idea First of all, two shifts to with Secondly (though numerical sequences may well be reversed), you would have a difficult time finding men who would be willing to stand alongside a lion during

There was understanding between us, and although in

Just a few days after this operation on Court's lion, I was standing outside the cat barn having my first lengthy chat with Damoo Dhotie. He was wearing a tan T shirt and

studying his animals. I had observed how they did everything but now I wanted to know why they did it.

While we were talking, I noticed that the cage boys were running some of Damoo's cats from their cages in the cat barn into the chute which connects with the outdoor training ring. There were leopards, panthers, black jaguars, tigers, and so on. As each animal was driven forward into the chute, a board was inserted partitioning him off in his own cell.

I had noticed this out of the corner of my eye, and during a break in the conversation, I pointed and said to Damoo, "How can it be that the cats are so tame?"

"Oh," he said, "he said work." He snuffed me.

"You will pardon me please? I must work for a while. I will be free in a half hour and we can talk some more." Whereupon he walked the few yards to the cage, opened the door, swung himself in, latched the door after him and then gave the signal to the cage boys to let the cats into the ring with him.

My first wild animal interest was the big cats—and to this day I think it is the greatest. That may be because they are the most terrifying. Actually, I think my interest is a

animals, almost the way a parent does to his child.

The next morning the lion was full of pep and when he came up to his cage he was assiduously lapping up all the milk the boys could put in his cage. After the third day began pulverizing meat and putting it in the milk. I found that he was able to get most of this meat up with his tongue and to swallow it without chewing. He lost some weight, but he came through that operation fully and recovered completely.

Six weeks later we anesthetized him again, opened his jaw up and removed the wire. The jaw had knit perfectly, the bone was smooth and straight and hard, and we had a completely healthy lion who went back into the ring and performed just as well as he ever had before. He lived four years after that, when he finally did die, not so very long ago, it was from old age.

I had hoped that nothing of this sort would turn up quite so soon, but in looking back on it I think perhaps the operation, coming when it did, is the luckiest thing that happened to me during that period. This was no routine treatment. It was something for which there was little if any precedent. If it hadn't worked I don't know how I would have felt. The fact that it was successful gave me an amount of confidence that I needed badly at that time, and which I am sure enabled me to save the lives of countless other animals during the ensuing months.

Alfred Court and I were friends and saw a great deal of each other until he retired quite recently. The friendship dated from this operation. As we worked together, both to the same end, each of us realized—without either of us saying anything—that we were men who were happiest when we were working for and with animals. We weren't misanthropes; our relationships with people were excellent and enjoyable—but we were more at home with animals. When there had been a choice in our lives, each of us had always made the decision that kept us close to animals.

The male can usually be identified by the tremendous mane on the back of his head and around his neck. The lion is a little less fierce than people imagine. He is a no coward animal, and most animals like most people are afraid of him. The lion male can be tame.

He can be tamed. He is a nice animal.

Trainers, however, have been attacked by lions. They have even been killed by them. While I was working on this book, Miss Kovar whom I knew well when she was an animal trainer for Ringling Brothers, was killed by a lion in California. When a lion attacks he will never spring in one leap and land on you the way some of the other cats will. He is more likely to come in rushes, or he will knock you down with his paw. His claws are long and sharp. His paw is heavy and can easily break a man's back or his neck before the animal pounces on him. The lion is most dangerous when males and females are in the ring together.

It was Damoo who pointed out to me that of all the cats, the lion is the only one that travels in prides or groups. The tigers, the leopards, the panthers, all travel either singly or in pairs. That makes an important difference in the jungle, when a lioness in the pride comes a hunt all the males will fight over her. They will fight until one emerges the victor. He may have left a train of blood, maimed or simply wounded animals behind. That victorious male and the female go off together many many times a day in almost complete hiding, and there they have but moments to a honeymoon. They stay away two or three weeks. Most of that time they neither hunt nor eat, and should any unfortunate animal or man come in their way he is quickly disposed of. That same jungle in fact doesn't leave a lion because he prefers to be driven onto a ship and quarantined in a circus. Thousands of miles away from home. Wild animals have to be remembered as a rare treat they can be

combination of admiration for their beauty and dign and the challenge they present to any man, be he train doctor, or cage boy. Visitors to winter quarters by thousands stand in front of the cages of these animals and almost invariably call them by the wrong name. A man will stand in front of a leopard cage and say to his wife, 'Come over here, Mary, and look at these tigers.'

It seemed odd to me that this should be so until I remembered that except in our largest cities there are no zoos and the vast majority of our population never has the chance to see wild animals. That accounted, I suppose, for the tremendous popularity of the circus menagerie when the show went on the road. This was the only zoo many people ever saw, and a considerable zoo it was.

As a result of my friendship with Court and Dhotre and my increasing fondness for the cats, I now began to learn more about them than I had ever known before. I talked to the cat men. I read animal books.

The commonly found cats in our zoos and circuses are the lions, tigers, leopards, black panthers, jaguars, black jaguars, and then some of the smaller ones such as ocelots, cougars, wildcats. The differences are rather striking.

The lion, of course, has long been known as the King of Beasts. I asked Damoo once whether he felt the title justified.

"Yes," he said, "in my opinion it is. First of all, he looks the part. He looks like a king. He has size, he has dignity, he has what appears to be great pride. Secondly, even though some of the smaller animals can attack faster than he can, the long hair around his neck usually prevents his getting killed by them. I think, Damoo concluded, 'that if there is a king of the jungle, the lion certainly earns the title.'

The lion is one of the few animals that nearly everybody recognizes. It comes from Africa. It is the largest of the

cats. The male can usually be identified by the tremendous mane on the back of his head and around his neck. The lion is a little less fierce than people imagine. He is a noisy animal, and noisy animals like noisy people are usually friendly. The lion makes friends easily. He is highly intelligent. He can be taught tricks rather easily if he is caught young. He is a nice animal to have around.

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That same jungle instinct doesn't leave a lion because he happens to be driven onto a ship and quartered in a circus many thousands of miles away from home. Wild animals, we have to be reminded, are never tame; they can be



trained with patience to do certain tricks but they are still wild in every respect

In the ring when a female lion comes into heat the males as a rule don't fight only because the trainer has them under control They have been punished in the past for fighting in the ring and remembering that punishment they stay on their pedestals But they do growl at one another and every instinct urges them to fight They are extremely nervous At this time they are very unpleasant It is at this point that any slight change from the usual voice or movement—anything at all unfamiliar that the trainer does—is likely

another animal make

peated it is likely to

point he will attack either the other animal or perhaps the trainer himself For that reason many trainers will remove the female from the act during the time she is in heat

A very good friend of mine Dick Clemens was attacked twice in one recent season by a lion at the time a female in the cage was in heat Once a lion knocked him down and mauled him The other time he bit him through the shoulder At that point the relationship became so strained that Clemens had to take this lion out of his act Yet in this case the lion was a bottle fed pet of Clemens's he had been carefully raised and trained by Dick from the time the animal was a cub Nevertheless when jungle instinct comes to the fore even domestic born lions are blinded to things like loyalty and friendship He reminded everybody that he was a jungle animal

Lion acts are sensational because the animals are large because they do look fierce and because a trainer who can train a lion to feign attack can make himself look like a very great hero indeed

Tigers are the ones with stripes They are considered by many trainers the most vicious and the least reliable of

Both animals are extremely vicious. They are quick; they have mean tempers; but they also have a high degree of intelligence and can be trained to do a number of amazing tricks.

Damoo tells that when he started learning about animal training, at the age of thirteen, his first trick was to ride tiger around the ring. His teacher told him, "If you can learn to get along with tigers, nothing will keep you from being a great animal man."

The tiger is the largest of the cats next to the lion, frequently measuring twelve to thirteen feet from nose to tail, and weighing up to four hundred and fifty pounds. In action, the tiger probably looks fiercer than any of the other cats.

The leopard is a comparatively small, spotted animal.

It can climb on the limb of a tree and leap on any passing prey. Many naturalists contend that he is the best-camouflaged animal in the world. He

Some have two leopards who permit him to carry them around his neck like fur pieces even though they weigh in the neighborhood of one hundred and fifty pounds.

The black panther is actually a freak leopard. Like humans, some animals are melanic—that is, born with an excess of black pigment, a condition opposite to albinism, or lack of pigment. A spotted leopard may have a litter

containing one or more black leopards likewise breeding two black leopards may produce either black or spotted c both

This is the animal normally called the "panther" (though various countries often refer to some local animal as a panther) If you ever look at this sort of panther closely you will find that although his coat seems to be solid black, he actually contains the same spotting as a leopard in a black of even darker intensity than the rest of the coat He is a freak, and perhaps because he is poorly camouflaged for the jungle the black panther is even quicker than the leopard and is commonly considered the most dangerous animal to work with He is almost impossible to make friends with, and sometimes doesn't play with its, when they are playful—just on the other

hand, develops into a snarling mass of fury within a few weeks after he is born He seems to know that things are going to be tough for one whose color deviates, and literally comes out fighting He gets worse and worse throughout his life, and can be controlled only through sheer will power and patience on the part of the trainer He always remains a sullen and somewhat reluctant pupil

The spotted jaguar looks like a leopard but is native to the Western Hemisphere from Texas to Paraguay He is slightly larger and more heavily built than the Asiatic or African leopard, and his face is larger and more triangular His head and neck have a similarity to a bull's rather than a cat's The jaguar is normally not too bright, although he can be trained, and he has the same kind of meanness that a leopard has It is seldom that one finds trainers going out of their way to work with him

The black jaguar has the same relation to the spotted jaguar as the panther does to the spotted leopard It is a freak It is poorly camouflaged and it is a vicious violent

animal. A trainer very seldom works with black jaguars because it isn't apparent to the audience that he is performing one of the most difficult jobs in wild animal training, and seems therefore not worth while. Damoo Dhotre, however, has a pair of black jaguars—for many years, I believe, the only trained ones in this country. He has taught them to do a number of difficult tricks including that of allowing themselves to be carried around his neck. Considering that Vegas, the male, once used to attack Damoo every time they were in the ring together, this is something of a feat. But the average onlooker won't consider it as exciting as seeing Damoo with a leopard around his neck. What the onlooker doesn't know is that this is something personal.

Vegas is the only animal of some hundreds that he has worked with that continued creating trouble for Damoo over a long period of time. Purely as a personal matter, Damoo determined that he was going to subdue and carry his animal on his shoulders before another "dangerous" Indescribable.

Isn't built of this business of training.

These were the various types of cats we had when I joined the show. Training any of them takes courage, skill, and patience, and a very long apprenticeship. Pouring a mixed assortment of them into one cage at one time takes even more and is the most admired feat of all.

All wild animal trainers will admit that once an animal is completely out of control there is nothing a trainer can do. Although there is a common belief that in a pinch the trainer can pull out his revolver and shoot the animal dead, this is certainly never done in the Ringling Brothers circus and I doubt that it is resorted to elsewhere.

During my introduction to circus life and animal training I was surprised to learn that there wasn't a gun carried by anyone connected with the organization—unless per-

haps in the pay wagon The explanation seems logical enough As Alfred Court said to me once What would you do with a gun? With an audience completely surrounding you if you missed the animal you would undoubtedly hit one or more spectators and he added your chances of missing the animal would be excellent Remember his attack is sudden He is coming at you He is moving He is in the middle of a leap He is diving O you have come to the point of realizing that a stick can hold him off he is almost on you You fire at a quick moving target The chances of hitting him with one shot out of one try are almost negligible Even if you are lucky enough to do that you probably won't save yourself because he continues his leap which he has started He probably won't die instantaneously because your aim can't be that good on a moving target and so you still get hurt or killed

Their safety depends on their ability to keep the animals under control or to defend themselves in other ways against any animal out of control

I spent many hours during those first few months leaning on a fence outside the cat barn talking to Alfred and Damoo I believe I like cats partly because of my fondness for these two men but I think it worked the other way too because I was fond of cats I instinctively liked these men and was fascinated by their profession

Both of them seemed in many ways rather paradoxical Alfred Court not only had the iron nerve and the physical dominance that all animal trainers must have but he was also a very courteous almost Old World courtly person His name might almost have been tailored for him

Damoo although short of stature, often impresses his audiences as a giant He too has an air of physical dominance including a sort of daredevil quality But Damoo is also something of an intellectual He is steeped in a book

round of Hindu philosophy and Hindu mysticism. Although his life has not included more than five months of formal education, he is one of the most learned men I have ever met. His knowledge of animals is thoroughly practical, not to say he has a keen interest in the animals he works with.

one of the most enlightening experiences in the world

Like Tarzan, for whom he once doubled in a movie, Damoo was raised with wild animals. He was born in India and at the age of thirteen had already spent three years in his uncle's circus. Those years were spent as an acrobat, clown, and trick bicycle rider—but at thirteen he began training lions as a student animal trainer. By the time he was seventeen he was well known throughout India as a daredevil bicycle acrobat and an equally daredevil animal trainer.

He has had many narrow escapes. He has on many occasions been attacked.

"many times," he says "and every time it was my own fault."

Most trainers agree that the chief fault among trainers and the chief reason for their being hurt is that they become overconfident and are inclined to forget that their animals are still jungle creatures. The trainer who remembers this is always on his guard. The trainer who doesn't eventually gets hurt or killed.

When I would see Damoo or Alfred casually walking into the ring with their animals, practicing their act—fighting off trained animals, and coming out again to have a

frankfurter between rehearsals, I would ask them whether they ever worried about getting hurt someday. It seems impossible that they did, and at the same time it seems unlikely that they wouldn't. What I learned was that apparently with all wild animal trainers there is usually a fear as the rest of us know it. Dimoo has told me many times that he is thoroughly aware of danger, that he knows just what each animal is likely to do to him, but this 'fear' as he calls it, is apparently a mental process, not an emotional one. On the other hand, I have seen animal trainers who on certain days seemed really frightened.

I, myself, on the many occasions when I have gone into a cage with a wild animal, have usually been frightened. Through my own experiences and through talking to wild animal trainers I have evolved a theory that is at odds with that of the medical profession.

I had always heard that animals could "smell fear", that if a human were really afraid of an animal, the animal would know it no matter what the person did to cover it up. I think this is wrong. I think I can provide evidence to make a case for the fact that animals cannot smell fear; that fear is not something tangible. I think animals can sense fear, but I think they get it through the tone of a person's voice and from his actions. I myself have handled horses, mean horses, of whom I was terrified, but by keeping my voice stern and my actions definite, I was able to keep that fact from the animals. Some of these horses, I know, would have kicked me into a corner if they had been able to smell my uncertainty. And I have gone into cages with bears and leopards who would have attacked me instinctively if they had felt I was bluffing my confidence.

One day as I was walking over to the outdoor ring to watch Damoo rehearse his act, I noticed a cluster of people around one of the cages. I ran over to the cage. Damoo, who spends all his free hours walking up and down in front of the cages making friends with his animals and keeping an eye on them, had discovered a break in the tail of Lima, one of his pumas.

Together we looked at the tail. Yes, definitely broken . . . (We never discovered how this happened. It might have been clawed by a neighbor, although there were no claw marks. Sometimes when an animal is being shuttled from one cage to another, the cage boy swings the iron gate closed behind the animal too quickly while transferring him. A cat, as soon as he is through a gate, often swings around and starts through in the other direction. For this reason, the boys learn to work very rapidly closing the gates, and it may have been that Lima got her tail caught and broken that way.)

She didn't seem to be in pain. We decided that together we would run her into the squeeze cage and Damoo could go ahead and work the rest of the animal while I operated. I had never mended a puma's tail before, but of course I had had similar operations on domestic animals.

I had a couple of the cage boys hold her forepaws out through the bars of the squeeze cage and I gave her an injection of Nembutal. When she was asleep I opened the rear end of the squeeze cage—I didn't bother to remove it because this operation didn't take very long—and set the tail binding it tightly with a plaster cast which I hoped she wouldn't chew up too soon.

I watched her very carefully for the next few days. Although at first the cast bothered her and she did chew at it a little, she left enough on for protection, the tail stayed in place and the mere fact that there was an annoyance prevented her from making Lima conscious enough of the tail so as to swing it around or getting it caught in places



that might have injured it. When we removed the c her tail was perfectly straight. Damoo put her right b into the act and she was an entirely healthy and prese able animal.

I stumbled across some amazing facts during those f few weeks that big cats have sinus trouble. For instan Alfred Court had suspected this for a long time, and r whenever an animal of his appeared sluggish he would c me over and we would examine it. Everything I found c firmed his suspicion. On certain days, certain of the h would hang their heads low, indicating headache. Th would be either ill tempered or completely spiritless, e pending on the individual animal.

I found that letting an animal rest for a couple of d would usually help him recover and frequently, m aspirin in his food would speed the process—30 grains i lion, 15 grains to a leopard, 60 grains to a horse. (T grains is the adult human dose.)

I knew that horses frequently suffer from sinus trou when a cold is neglected and the animal i worked t hard. What apparently happens i that the cold in his r  
 . . . . . ik po  
 . . . . . you

both horses and dogs. In these cases, as with huma aspirin relieves the pun. There have been a few horses i which I have actually had to operate to drun the infecti but these cases are rare and I do it only when absolute necessary.

I had bought a rather large and as I recall an expen black leather bound notebook, and here it was I b writing down jottings of new information, observatio theories and just plain facts. This I hoped would be ues on the road when things were rushed and we were worki

on a tight schedule when I didn't have time to sit and chat with trainers and cage boys and menagene men before making decisions

## CHAPTER IV    Elephants Have Tender Skins

SOMETIMES one recalls vividly certain experiences without being able to understand the importance of their details or why memory retains them

When I was about five a neighbor took me for a ride in his new and in those days revolutionary automobile. I asked for so nothing during the ride—ice cream, I think—and he said very positively, "No sure!" I don't know why I have gone on remembering that so clearly, but every time I saw that neighbor after that, although he was fond of me and went out of his way to do little favors, I wanted to run.

Likewise, I will always remember the day I discovered that elephants have tender skins, but this memory I do understand—and for a very good reason. The story starts back a bit, just before I joined the show.

Toward the end of the tour that year there was a tragedy in Atlanta. Atlanta was on the swingback toward winter quarters and the show was to play there in October. Just at the time John Ringling North was telephoning me

to offer me the job, the circus train was pulling into the Atlanta siding and preparing to unload.

Suddenly, one after another, the elephants dropped to the ground. By the time the boys were ready to walk them to the lot most of the animals were out cold.

The newspapers made a good deal of it at the time because there was something of a mystery attached to it. Obviously, the Ringling Brothers and Barnum & Bailey elephant herd had been poisoned.

A number of the animals died very quickly. The others were saved, although some of them were violently sick for a while. Nobody could imagine who would dislike elephants enough to feed them poison. What made the mystery even deeper was the fact that the elephant herd is never unguarded. It is guarded partly to keep people from teasing or hurting the animals and partly to keep the animals under control. If one elephant should ever break loose and go on a rampage the tendency is for the others to do so.

In this particular case the elephants had been watched very carefully and yet had been poisoned. The surviving elephants were treated on the spot. Post mortems were performed on the dead elephants and it was determined by laboratory tests that arsenic had killed them.

The mystery was finally solved when it was found that not too far from the railroad siding at the previous stop there had been a chemical factory. Among the waste materials which it scattered—it supposed harmlessly—over the surrounding territory was arsenic. When, quite innocently, the elephants' hay had been scattered over this arsenic-covered ground some of the animals had taken enough to kill them. Those that didn't die still took enough to get sick.

The veterinarian who treated the elephants gave a medicine intravenously in the ear. In several cases, some of the

... got out of the vein into the tender tissue of the  
and abscessed

By the time I joined the circus, we had some thirty elephants with abscesses behind their ears. Walter McClain told me the news. The elephants had had these abscesses for some weeks before I got there, but they weren't serious. McClain knew that as soon as a veterinarian was hired he could take care of them. He was also smart enough not to confront me with a problem like that during the first few days.

..

... We chatted idly for thirty minutes or so and then I asked, "Doc, you know much about elephants?"

"No, I don't know anything about elephants."

"Doc, we've got some sick elephants."

"That's just fine," I said. "What's wrong with them?"

"Well," he said, "you remember reading about the poisoning in Atlanta. A lot of them are still suffering from the aftereffects."

"Well, I'll see what can be done about it," I said. "Do they let you treat them?"

"Yes," he said slowly. "I think maybe the two of us might be able to manage. On the whole they are fairly calm while you are treating them—that is, of course, if you're strong enough."

... unworthy; highly intelligent, yes—probably the most intelligent of all wild animals except chimps. But also very unpredictable. They have been known to at

tack, for no apparent reason. Despite my qualms, they had to be worked on, however, and I was only thankful an intelligent elephant man like Walter McClain was around to help. I got some of my equipment together and we started walking over to the elephant kraal.

"I'll tell you one thing about these elephant abscesses," Walter said. "Just draining won't be enough. I guess you would call them incapsulated abscesses, because what happens is that a capsule seems to have formed between the cartilage and the skin. Instead of just digging a hole and draining, you'll have to cut and actually remove the whole capsule."

"Well," I said, "let me open one up and I'll soon find out."

The elephant kraal is really a row of open sheds formed into a square with a watering trough in the center. As you enter, you find four solid rows of elephants staring at you from around the sides. Each is chained to a ring embedded in concrete by one hind and one front leg. There is a loose chain strung across in front of each row of animals to keep people from getting too close to them. In the circus, this is known as the "picket line."

The elephant who was in particular pain this day was named Jenny. She was restless. She was moving her head in circles and stamping her feet. Walter and I approached her cautiously, and Walter grabbed the elephant hook.

This is a stick about the length of a broom handle. At the end of it is a small, dull hook. This hook is used by the elephant men in leading and training elephants. It doesn't hurt the animal, but it tugs at her in one direction or another and she soon learns to respect orders given by means of the hook.

Walter got in front of Jenny, holding her trunk up and her head down. I could just about reach the area in back of the ear where it was necessary to operate. As soon as

nched her, Jenny started bobbing her head and weaving spite the hook

"Why is she bouncing so much?" I asked Walter anxiously. "I am not hurting her. I am just patting her ear."

"Touching them can drive them nearly crazy," Walter said. "Didn't you know, Doc, that elephants have very tender skins?"

"Are you kidding?" I scoffed, slapping my hand sharply on Jenny's gray hide to disprove Walter's joke. To my amazement Jenny never flinched. She even seemed to blink.

"That's what I mean, Doc," Walter laughed. "They love a firm slap, but a fly or a tickle on their skin will drive them crazy."

I was being crowded by the elephant next to Jenny because the elephants on the picket line are chained rather close to each other. I took out my syringe and, after mopping the area with antiseptic, injected a local anesthetic just to be sure. An anesthetic isn't very good for this kind of thing usually, because an animal can fight the injection as much as the operation and an infected part like this isn't too responsive because of the fact that the infection

Suddenly, without my knowing it the elephant next in line—for what reason I will never know—dropped her trunk on the —  
a clip  
extinct  
I had

and as my weight made it go taut, it sprung me back I landed flat on my back underneath Jenny

I lay sprawled on the ground, half stunned more so than I have ever been in my life, when Jenny's blood overflowed. Then I moved so fast that it might be described as bouncing.

Only one thing and there, and then the hook and he forth and laugh immediately and I managed to pull myself together put up my dampened dignity, and, in a much calmer frame of mind, continue the operation.

I have had hundreds of such operations since but I have never liked them—not one. As a general rule, the abscess becomes as big as a man's hand and I have to make correspondingly big opening through which to work. The abscess must be picked with silver nitrate to loosen the capsule, and then worked around and around by hand until the entire capsule is loosened and can be taken out through the opening. It is seldom painful to the elephant but it makes a terrible fuss simply because they do not like to be handled.

Elephants I fear could never be influenced by the feminine touch.

An elephant will invariably toss hay and dirt or whatever he can get his trunk around onto his back. It is seldom you see an elephant without this layer of dirt and hay on his back. The hay and dirt is insulation against the pricks and tickles of flies and mosquitoes, an elephant's worst enemies. This surprised me because I had always thought as most people do, that an elephant has a thick skin. I learned the other way. I have seen also have let them in to wash up and thing t

remember when considering walking up to pat a hippo )  
 An elephant's normal temperature is nintynine to a  
 hundred degrees but the temperature of the veterinarian  
 taking it always shoots sky high when he is trying to get  
 a reading on an elephant The thermometer is about four  
 inches long but it is breakable; and it can be lost—I always  
 use a string to the one I am using so I can recover it And  
 whenever the performance of temperature taking is neces-  
 sary I always like to have the elephant trainer handv  
 When the trainer is around the animal has a combination  
 both fear and confidence He has a fear of doing some-  
 ung he is not supposed to do and the confidence that  
 harm will come to him Sometimes the trainer himself  
 I take the elephant's temperature More often he will  
 and at the animal's head and talk to her and just gener-  
 y keep her calm while I try to get the reading  
 When we do find an elephant with a high temperature  
 I other symptoms of stomach upset we have our work  
 pleasantly cut out for us A horse can be fed a laxative  
 any other medicine by means of a capsule There's no  
 k at all to making a horse swallow such a capsule This  
 ot true of an elephant An elephant's mouth can't be  
 I open His teeth are hard and strong and you can't  
 a chance on putting your hand in his mouth if you are  
 ing him do something he doesn't want to do He won't  
 low anything he doesn't want to swallow and his  
 ne is so powerful that nothing can get past it if the  
 unt doesn't approve All in all, he is a difficult patient  
 e first time one of Walter McClain's elephants got an  
 stomach I decided simply to feed her a laxative  
 gh a stomach tube That didn't work It would work  
 y other animal to get a tube into the stomach you  
 it through the nose Well It next became a mat-  
 working with the trainer and holding the elephant's  
 a hand trying to get her to swill down the laxative



and as my weight made it go taut, it sprung me ' ' I landed flat on my back underneath Jenny

I lay sprawled on the ground, half stunned more scared than I have ever been in my life, when Jenny's bladder overflowed. Then I moved so fast that it might be described as bouncing

Only one thing saved me from giving up the circus the and there, and that was the hook and he was down forth and laughing fit to

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Only one thing saved me from a wound in the circus tent and there, and that was

the hook and he was down

forth and laughing fit to kill. His attitude eased me immediately and I managed to pull myself together, patch up my dampened dignity, and, in a much calmer frame of mind, continue the operation.

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member when considering walking up to pat a hippo )

An elephant's normal temperature is ninety nine to a

inches long, but it is breakable; and it can be lost—I always tie a string to the one I am using so I can recover it And whenever the performance of temperature taking is necessary, I always like to have the elephant trainer handy When the trainer is around the animal has a combination of both fear and confidence He has a fear of doing something he doesn't want to do and the confidence that

s the trainer, himself,

More often, he will

stand at the animal's head and talk to her and just generally keep her calm while I try to get the reading

When we do find an elephant with a high temperature and other symptoms of stomach upset, we have our work unpleasantly cut out for us A horse can be fed a laxative or any other medicine by means of a capsule There's no trick at all to making a horse swallow such a capsule This is not true of an elephant An elephant's mouth can't be held open His teeth are hard and strong and you can't take a chance on putting your hand in his mouth if you are making him do something he doesn't want to do He won't swallow anything he doesn't want to swallow, and his

So I usually decided simply to feed her a laxative

— a thing to get her to swallow the laxative

(The normal laxative dose for an elephant is one gallon of raw linseed oil )

The elephant was Eva It took about five gallons before we got one gallon into Eva's stomach She would stick her trunk in her mouth, draw out the medicine we had managed to pour in and squirt it all over Walter and me We sloshed around ankle deep in laxative, and decided sadly that as a general routine this was not going to work A new system was called for

I next tried a medicine called Lentin, and this later became my standard elephant procedure Lentin is a laxative that can be given by injection It is extremely strong and has to be administered with great care It immediately starts secretion of all the glands in the body and it works in about ten minutes If there is a danger that the animal may have an obstruction in his intestine, Lentin can kill him

Elephants come down with chills frequently, exactly the way horses do It is easy to medicate a horse with brandy using a dose syringe but an elephant is almost impossible to treat with a dose syringe A dose syringe is long enough to reach way back into an animals mouth, by holding the animals head back and unloading the syringe you can make him swallow Not an elephant When they have chills and won't take brandy I give them an injection of camphorated oil and guaiacol or some similar preparation

The elephants have always been a sort of veterinarian's nuisance factor, because they seldom get anything very serious but they are continually ailing with one little thing or another For instance, very often a tusk will break and the root will have to be extracted (what I do then is to cut back three or four inches and pick out the broken piece of tusk)

All of our elephants are females because we have found

and the males tend to be troublemakers. Since elephants won't breed very well in captivity, there is no advantage in having males.

We make it a practice to remove a large portion of the tusk as soon as we get an elephant, so if she should start to make trouble, she will be a good deal less dangerous than she would be if she had the whole tusk.

First day's quarrels.

Wick is a fantastic.

One day we boys carried her down on our knees and I take her tusks off about six inches from her cheeks with a hack saw. There is no brutality and the elephants don't seem to mind the operation in the least!

When Walter McClaugh was alive—he met a tragic death shortly after I joined the circus—he and I used to talk frequently about breeding elephants. It has proved to be practically impossible, at least in this country. There have been reports from Germany and Italy that elephants have been bred in captivity and the offspring have lived. As far as I can check this has not happened in this country. There have been a negligible number of cases of elephants having been bred, but none where the offspring have lived over thirty days. I think the reason for this is that the elephants must be left alone and must be kept very calm and unexcited before they will breed.

I would like, someday, to buy a good male elephant, pick one or four of our better females and put them off four or five miles from the circus grounds in a large open space by themselves. I would like to go with them to take care from coming near people, by cars, by automobiles—left alone in the wilderness, as it were—I think they might stand a pretty good chance of producing healthy offspring. If so it would be a famous thing in this country and I think the publicity value to the circus would be immense.

Elephant men are among the busiest of animal men, because their charges are probably the only ones in captivity that need manicuring. Elephants have all kinds of trouble with their feet. Their pads get sore, they become infected, they have the same kind of cuticle trouble human beings do, only worse. An elephant man's spare time is usually spent working on cuticles, paring toe nails, polishing, rubbing with antiseptic, and, if the elephant act is going to be extremely fancy that year, actually applying fingernail polish.

Our elephants have to walk on concrete going to and from the lots. We have found that it is rather hard on their feet. To avoid serious trouble, we examine each elephant's feet every day. We look for cracks, breaks, and slight infections, and treatment begins at once before the animal becomes lame. This is good for the animal and we have found that the time spent is decidedly worth our while.

Sometimes our elephant charges turn up with new, unknown diseases. I had a phone call recently from an animal man in St. Louis. He had a trained elephant act and one of the elephants had developed a rather prominent swelling under the belly over an area of perhaps two and a half or three feet. He had asked a couple of local veterinarians but they were pretty much in the dark because there is nothing in horses that corresponds to it. I had run across a minor case only once in the circus but I told him to apply hot towels, to keep the animal's belly cased in hot packs, held on with a sling and to keep constantly wetting them. I also suggested that he give her streptomycin daily for five days. As far as I could guess, it was a toxic condition caused by an infection somewhere in the elephant's system and it was collecting under the skin at the lowest portion of the animal's body. I doubted very much if it was an infection of that immediate area, or that it was

serious infection anywhere else. The trainer treated the animal as I suggested and checked with me by phone every day. Within two weeks his elephant was all right and the ailment never recurred.

Particularly as they grow older, elephants are likely to suffer from paralyzed trunk. A sort of creeping paralysis comes over this vital part, and although the animal can move it the trunk does not have its usual flexibility nor does it have its normal strength. An elephant with paralyzed trunk can feed himself pretty well, but instead of being able to trunk up and drop his food into his mouth, he has to toss his head and catch his meal in mid air.

The minor ailments can usually be put into the hands of the elephant boys, as for instance when their skins get dry and have to be oiled. Once the proper oil has been given to the boy, he can rub it in as well or better than I, because he is there all the time and the animal knows him.

Elephants bite each other's tails, partly out of nervousness and partly because that's the way elephants are. The tails get infected at the bitten part and they have to be treated continually with hot packs and sulfa and other

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I put over most of my time for the last few years in

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for many, apparently, she calmed the patient while I treated her. I became, in time, quite attached to Ruth, and she is still much of assistant in my elephant work.



I'll always remember how I learned about elephants from Jenny, but animal men agree that elephants only when the night that they and the a little while

## CHAPTER V We Don't Shoot Them Any More

**I** LIKE HORSES I know they are excitable and have to be watched carefully and I will admit they aren't as smart as some of the other animals. They get injured easily and don't take care of themselves too well. But I like them.

It may be that my accumulation of knowledge about them does things for my ego. I don't know what the reason is. It doesn't make any difference. When I am working with horses no matter how hard the work or how long the hours, I am contented.

I like horses. I know how they act and why. I think I know what goes on in their heads. I know how to tell a horse what I am thinking and I know how to figure out what he is thinking. I have taught horses practically everything you can teach a horse, and I have learned a lot from them too.

A horse can be the most beautiful animal in the world

if he is healthy and well-cared for. He can be a good companion for the long pull, or a means of escape in a crisis. Horses can save you or ruin you, hurt you or protect you. They surpass all other animals in their ability to respond to human attention. I like them.

During my first weeks in Sarasota I was lonesome—mesome for my horse, a mare named Benny V. She was a colt when I last saw her in Kenville, the fifth generation of a line owned by my father ever since his marriage. The first animal he owned was Benny V's great, great, great-grandmother. I couldn't have her with me in Shreveport, but here in Sarasota we had all the space in creation. It was a heaven for horses. There was no reason why Benny V and I couldn't be together.

She arrived one Saturday morning. She looked wonderful. I spent all that morning scrubbing and grooming her and then left her in the lower corral with orders that she be turned loose in the pasture for several hours a day. My plan was to leave her here while I was on the road, hoping she would be in good shape for breeding the following year. I didn't breed her now because I wanted to be around when she foaled. It looked very much as though I were soon to be raising a family and it was a pretty happy feeling. Horses can do that to a man.

On one of my daily inspections of the horses my attention was taken by a big black stallion named Lindy who had a swelling just above his stifle. He was one of the best saddle horses I have ever known. His lameness bothered me a great deal. Lindy didn't seem to limp very much and the groom told me he thought the infection was draining. But for one reason I didn't like the look of it. It had hung on far too long. For two or three days, I tried to—

very hard to examine because, althought Lindy was a gentle horse normally and never caused any trouble, the minute I went near his bad leg he would strike out in all directions with what seemed like all four feet at once.

On this day, as on most others, I had more things to do than there was time for. I was always being forced to put off a lot of routine work for some emergency. By the afternoon, everything seemed to be under control and there was nothing pressing for attention, so I gave Lindy a local anesthetic much against his will and opened up the infection. I took out a piece of stick about two-and-a-half inches long and about three quarters of an inch in diameter. It had apparently run up at an angle in his leg above the knee. No one saw it happen and there had been only the smallest wound. I don't know how long it had been there, but it was easy to see why the infection hadn't cleared.

About a week later, I was a little puzzled to find that the same infection was still draining. It was just as though nothing had been done to it. This time I was seriously worried, so I immediately went for my equipment. I got three of the better grooms to help me, we laid the horse down and I injected a shot of anesthetic that put him completely to sleep. I had decided to open the leg. I went into the wound the way I had before, but this time I continued cutting. This time, I found that the area continued clear on through to the other side of the leg. Before I finished, I pulled out another piece of stick some six inches long. Apparently Lindy had rubbed against something or had fallen, this splinter went almost directly upward in one side of the leg and almost out the other side.

After this, I kept his leg packed for a few days and it healed beautifully. There was not the slightest suggestion of a limp and this pleased me, because for a performing horse it isn't enough to make him well from an economic standpoint, you must make him well enough to perform,

it wouldn't pay to have a horse on which thousands of dollars have been spent for training and be able to use him only for hauling a float. He must go back into his act.

Some of the things that happen to our horses in the process of the amazing tricks they do are rather spectacular; some of the treatments and cures are equally so. But whether the treatment is spectacular or not, the horses, because of their great number and their great value, are a continual source of trouble.

The way my new routine was working out, I was spending about half my time with the horses. Coming out to water quarters early, I would first make my rounds of the horse corral. Then I would examine any animal that I knew was sick or injured or any animal that had required working on in the last day or two.

Then I would go through the menagerie, the elephant kraal, the outdoor menagerie cages, the monkey house, the lower corral, and end up with the cat barn.

Also I was called continually all day and frequently at night to examine animals that weren't acting right. Most of the time these didn't require much actual attention—the cage boys, the trainers' helpers, and the grooms all had strict orders to call me if they had the slightest suspicion that an animal was off-color, and they did their work well, but that meant they called me many times when an animal had some slight discomfort that didn't require treating—something that possibly could simply be slept off. It was after that way, but it was hectic and time-consuming.

Furthermore, I was still spending a lot of time talking to people talking to the cage boys, talking to the performers as they were trying to learn as much about the circus as such as I possibly could, so that I wouldn't be bothered with the little matters of timing and routine when we went on the road and, therefore, could devote all my energy to the main

My hospital was coming along fine. The management ordered anything I wanted in the way of medicine and equipment. I had had new shelves put in, and now took pride in my small and unpretentious but efficient little setup.

So much of my time was spent with the horses because it was a sure bet that once they started traveling there would be illnesses, accidents, fights and other mishaps. I wanted to become so well acquainted with each individual horse that there would be no chance of anything progressing when I could nip it in the bud. I had to operate on the theory of the old time family physician who perhaps knew more about his patients than he did about medicine rather than the newer type of doctor who knows more about medicine than he does about his patients.

One morning, shortly after a very early breakfast, Jerry, a beautiful, big white bareback horse, was brought into the indoor training ring for rehearsal. Jerry was the Number One horse in a horse-to-horse trick. The two horses cantered around the ring, one immediately behind the other. While they ran, an acrobat standing on Jerry's back, would jump into the air, do a backward somersault and land on the back of the Number Two horse. This was a rather spectacular act and a very difficult one to do. Jerry was a good horse and he had been doing this routine for a number of years.

It was a loud commotion  
past the door. Tiny, a  
me running out calling

I ran in to find Jerry down on the ground. He had stepped on the ring curb and broken his leg. All bareback horses are trained to follow the ring curb around. I have seldom known one to step on it. One quick look at him and I found that the break was right above the hoof.

Leaving him where he was I ran for my emergency kit,

then several assistants and I went to work on him to set the bone. Down where the break was, there was very little flesh and I could set it by touch. I prepared some plaster of paris and made a cast. We walked Jerry back on three legs to his stall, where he immediately lay down.

Jerry was a wonderful patient and that is what saved his life. For the next eight weeks he spent twenty three-and-a-half hours of every twenty-four lying down in his stall. He got up a few times a day. When he did stand up, he did it very carefully and he held the injured leg off the ground. When he did lie down he did it as carefully as though he were settling down on a bed of eggs. The bottom of the bandaged leg never even got dirty!

He came through it all beautifully. We cut down on his feed so his lying around wouldn't make him fat and sluggish or colicky, or give him any of the diseases that horses get from eating too much and not exercising enough. Within six months, Jerry was perfectly healthy and walked without a lump. He was never good for bareback work again, though, because he had turned ring-shy. He was always afraid he was going to hit that ring curb, and he was unsure enough of himself to be unreliable in the ring. But we did use him for a number of other purposes for a long time after that, and he was always a good horse.

Jerry was replaced in the act by Tom, who had been trained by him. He trained but even before we got on the road, Tom proved unsatisfactory. During rehearsal one day he hit out with both hind feet for no apparent reason and licked the head of the Number Two horse. There wasn't much I could do about the injured horse except to ease his pain a little and take care of the flesh wound. His head healed with a very obvious dent in it. For show purposes, we managed to cover it up with a tassel or flower, but that didn't become ring-shy in another way. He would no longer be behind any other horse. So we trained him as the

Number One horse to replace Tom, and a new Number Two horse had to be broken in to work with him.

Frequently, when a horse is sick he gets what is known as azoturia. In the old days, we used to call that "Monday morning sickness." It comes of a horse lying around all day Sunday, eating as much as he does when working. Starts to work on Monday.

It is a very dangerous condition. The horse is forced to move; he stands a good chance of rupturing muscle or some internal organ.

When azoturia does come on, although we make every attempt to keep it down by cutting the feed when the animals aren't working, I always give them an injection of something to relax them, and then a calcium gluconate injection to restore their strength. They are usually all right within a couple of hours.

I have seen a horse that was so bad that he couldn't get up.

One of the things I remember is a horse named Tom that had a bad break in his leg. We put his entire leg in a metal splint. The splint, which Young built out of aluminum, was so made that it fitted him up around his hip and extended down a couple of inches below his hoof. We bored a hole through his hoof and bolted that to the splint. It was like a permanent crutch, and that Shetland could actually walk while the break was healing because his weight was on his box rather than on his leg. That is now a common treatment for fractures for a number of four legged animals. Not so long ago, these same animals would have been shot.

I was learning new things even about horses during the first four months in winter quarters. Things were happening so fast, I often didn't dare wait until somebody called

and, which was opening day in New York, rehearsals were increasing in frequency and intensity, and there was an increasing number of the little accidents that always happen when animals get together.

What I learned about horses was the result of having so many horses doing so many different things in one place, at the same time. I developed routine treatments for every foreseeable contingency because only with a well-worked-out routine would it be possible to handle all of the animals on the road.

Take the routine of anesthetizing a horse, for example. I never give him Nembutal because it makes horses toss around a good deal while they are coming out of it. It is awfully dangerous for a horse to throw around. He can hurt himself too easily. A chloral hydrate anesthesia is much preferable. I don't always anesthetize completely, but even a small amount of chloral hydrate takes the fight out of them and removes practically all the pain. While doing a thorough internal operation, I simply use a large dose of chloral hydrate.

During this period it was necessary to castrate a number of horses. I have never liked to castrate horses without good reason, but there are times when a male is mean and too hard to handle unless he is castrated. Our experience has been that geldings, or castrated males, make by far the best performers in the ring. Studs, although sometimes good, are likely to be too excitable and unreliable. They are the biters and kickers. Mares are good except when they are in heat, then they, too, become extremely wild and are likely to bite and kick. But a well-trained gelding, in the long run, is the best performing horse. Whether



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I haven't had many bone breaks, luckily. Although most of them can now be treated, the constant traveling makes for complications.

There was a white Shetland I treated in Shreveport. The pony broke his leg rather high up, which required putting his entire leg in a metal splint. The splint, which Dr. Young built out of aluminum, was so made that it fitted him up around his hip and extended down a couple of inches below his hoof. We bored a hole through his hoof and bolted that to the splint. It was like a permanent crutch, and that Shetland could actually walk while the break was healing because his weight was on his body rather than on his leg. That is now a common treatment for fractures for a number of four-legged animals. Not so long ago, these same animals would have been shot.

Having a census was only having a census. My seven hundred animals all needed attention every day. Out of even hundred animals, just in the ordinary course of events, it wasn't hard to figure the incidence of sickness and accidents. As we drew closer and closer to the first of April, which was opening day in New York, rehearsals were going on frequently and intensely and there was an increasing number of the little accidents that always happen when animals get together.

What I learned about horses was the result of having so many horses doing so many different things in one place, at one time. I developed routine treatments for every fore-  
agency because only with a well worked-out routine would it be possible to handle all of the animals on the road.

Take the routine of anesthetizing a horse, for example. I never give him Nembutal because it makes horses toss around a good deal while they are coming out of it. It is terribly dangerous for a horse to thrash around. He can hurt himself too easily. A chloral hydrate anesthesia is much preferable. I don't always anesthetize completely, but even a small amount of chloral hydrate takes the fight out of them and removes practically all the pain. While doing a thorough internal operation, I simply use a large dose of chloral hydrate.

During this period it was necessary to castrate a number of horses. I have never liked to castrate horses without good reason but there are times when a male is mean and too hard to handle unless he is castrated. Our experience has been that geldings or castrated males make by far the best performers in the ring. Studs, although sometimes good, are likely to be too excitable and unreliable. They are the biters and brlers. Mares are good except when they are in heat then they too become extremely tail-end-a-likely to bite and kick. But a well trained gelding is the long run is the best performing horse. Whether

the circus learned this from the Western cowboys I don't know. But I do know that cowboys will almost never ride a mare, although for different reasons. They almost always, to my knowledge, ride geldings.

Arthur Konyot, who was training the Liberty Act, came over to see me one day and complained of a horse, a very bright horse and a very good performer, but a very mean animal. I examined him and found something that one finds only occasionally in horses: he had only one testicle. It was up in his abdomen and had never dropped. It had to be brought down by means of what is known as a ridgeling operation.

I anesthetized him completely, tied him up, and cut a hole in the region of the groin. I got my hand in through the hole and poked around inside until I found the testicle and, with an instrument, removed it.

This horse was all right within a very few weeks and every trace of stubbornness left him. I made the groom walk him three or four miles a day while he was recovering for I have found that this continued forced exercising of a horse while he is recovering from an operation is probably the best post-operative treatment you can give him. (From my reading lately, I gather that medical doctors are finding that very much the same thing holds true for human patients.)

There are also some of our horses whom one might call neurotic. There is never a year that I don't have one or two that are veritable babies about the slightest illness. The smallest touch of colic will make them thrash around and kick and roll in their stalls unless somebody gives them a little attention. Then they will calm down and happily take their medicine. But the minute they are left alone, they start thrashing around again.

This thrashing around is so dangerous, especially if a horse is colicky, that I used to do almost anything to avoid

it. And then one day, I found a treatment that has worked beautifully ever since. The medicine I give horses for colic is a very sharp burning mixture. It is usually fed to them in a capsule so that they don't taste it. One day, while treating one of these hypochondriacs I took a little of this medicine out of the capsule, put it in a dose syringe, and dropped it in his mouth. He tossed his head. He poked his tongue out trying to get rid of it but he couldn't. It burned him and he didn't like it. That gave him something to think about. By the time he had forgotten about that, he had also forgotten about his illness. He slept quietly for the rest of the day.

Some of our gentlest horses are among our worst patients. We have a little bay hackney named Sally, a beautiful horse. She usually never causes any trouble and never fights with the other horses. But the minute anyone tries to give her any kind of medicine in the mouth she rears up and paws with her front feet. She could easily kill a careless attendant.

Our horses are temperamental because they perform. They are always keyed up tense, and very nervous when they are being saddled to go into the act and they are always very calm right after it. This is partly due to their training, and partly because trainers have found that high sprung and high spirited horses make much better performers than full lustless too gentle horses.

There are horses that can't bear to be separated from their mates. This is a characteristic that many people, particularly those with little experience, attribute only to monkeys. My experience with monkeys has been otherwise. This characteristic in fact isn't particularly true of any other animal, but I know there are horse couples that can't stand being separated.

That first year we had two American saddle horses that didn't get on well together. They used to fight all the time. Nevertheless if one was taken out and saddled obviously

to go to work, it didn't affect the other. But if it was taken out for any other reason, such as to go to the blacksmith shop or for some other unaccustomed purpose the other would neigh and whinny and break out into a sweat and thrash around until it, too, had to be taken away.

After watching this for a while, I gave orders that whenever one horse had to be taken anywhere, they both should go together. After that, we had no more trouble.

We had two beautiful white Liberty horses, Ackm and Alle. They were mates, but we noticed no particular attachment, though we knew that they never fought and had been stablemates for a long time. One night, Ackm died of a twisted intestine. Alle carried on in a way that I have never seen any other animal do. She whinnied continually. She refused to eat and she refused to sleep. We doctored her, we tried her with new mates, we tried a change of scene, we tempted her with every possible food. We did everything in the way of medication and psychology to increase her appetite but she simply wasted away. Within two months she died of what can only be described as a broken heart.

There are pests too, of course. We are seldom troubled with the dreaded botfly—which, throughout the South and Southwest, is the bane of a farmer's existence. It lays its eggs on the short hair around the horse's knee and under the chin. The horse is annoyed by the itching and licks the eggs off. The larvae, in turn, hatch in his stomach and attach themselves to the stomach wall. To avoid this we look for evidence of botfly eggs on horses' legs, and simply mop them off with kerosene. The circus has one groom every three horses, which gives a chance for the kind of care that almost no farmer can afford. Every time a new horse arrives, he is wormed immediately. I don't worm our horses every year because it hasn't

■ necessary. But I do see that every horse is wormed at once in three years.

*Strongylus equinus*—a little roundworm that sucks an animal's blood—worries farmers, and we watch carefully for signs of it to treat.

We also have a number of cases of quarter-crack among our horses. This means the hoof starts to crack up top, at the fleshy part. A wound develops there, an infection sets in, and the hoof crack would, if it weren't stopped, continue all the way down the hoof till the horse was permanently lame. We watch for this because it is common and soon as we see any sign, we take the horse over to our blacksmith shop and have his shoes specially made to stop the ailment and allow healing.

Sometimes a horse has to be put away. Sometimes he is old and sick. Sometimes he is badly wounded. Sometimes he has an incurable break or an incurable disease. When things like this happen, we don't worry about the technicalities. We destroy the animal, and we know, and everybody else knows, that this is a "mercy killing," that there

is no feeling until the strychnine hits the heart, then the animal dies instantaneously. We bury him in a big field. We keep our animal cemetery at the far end of our winter quarters.

There is an ailment among horses called founder or laminitis.

My usual experience has been that founder either responds to treatment immediately, or it can't be treated successfully at all and the horse is in so much pain he has to be put down. In this disease, the sole

of the foot drops down below the wall of the hoof and causes excruciating pain

I had two cases of founder during my first weeks with the show. One was a bareback horse. The cure was so complete and so rapid that he was back in the act within a week. The other was a high school horse. A high school

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bowing, waving a flag, or walking up and shaking hands with the band leader. There is, of course, perfect direction from the rider. Horses like this take two to three years of continual expert training in order to be good performers.

The trainers, themselves, usually take a lifetime of training. In almost every case I can think of, they have come from families of high school riders and high school trainers. Probably the most famous example in recent years is the great Konjot who was with the circus when I joined it and remained for several years after that. It was one of his horses that came down with founder, and it seemed impossible that any cure could be complete enough to allow him to go back into the act. Because such horses have to maneuver almost the way a human being does, they have to be able to do things that one has no right to expect even a well horse to do.

However, I would try

I injected about a pint of normal saline solution into the horse's vein every three or four days. I also gave him normal horse serum every day, dosed him with alum nitrate every four hours and kept his front feet wrapped in cold compresses. As soon as he showed improvement I stopped the alum nitrate but continued the other treatment. In a few weeks he was back in the act without a trace of lump.

When we were ready to go on tour, it was a safe bet that these horse troubles were just beginning, but this phase

my work worried me the least. There is always a great deal of satisfaction to be earned by caring for horses, and my care then helped develop the self-confidence I need for work in other animal departments. To put a new slant on a famous remark: I like horses. I am glad I like them. Because if I didn't like them, I wouldn't be around them, and I like being around them.

## CHAPTER VI Training the Big Cats

TRAINING WILD ANIMALS has nothing at all to do with my job or with veterinary medicine in general and I have no desire to become a trainer. I have never trained a wild animal to perform, although I have raised two of them. However, I did develop a very real interest in this profession, or at least my first weeks with the circus, because of the tremendous duties of the job and because of my friendship with the trainers who worked with the show.

I learned a good deal about the big cats from Alfie Court and even more from Damoo Dhote. Damoo's approach to animal training is unusual. Having very curious as well as a very alert mind, he has studied the animals both as species and as individuals. During the months of what I know about training cats



A trainer's job takes a combination of physical agility, mental alertness, and courage. It is naturally dangerous. The trainers who live long are those who remember that a wild animal is never, never tamed, but only trained. Damoo has told me time and time again that whenever a trainer gets hurt, it is always the trainer's fault—and this is not the boasting of a smug man who has happened to be lucky. Damoo has been badly hurt and he has been in danger of death. What he means is that it is bad to become overconfident, to forget that the animals are still wild, still savage, and always on the borderline of getting completely out of control.

Damoo's theory on training a wild animal is similar to what he says, to that of training a child. "The first step," he says, "is to remove the animal's fear. An animal is instinctively afraid of a stranger, and because he is afraid, he will attack."

Damoo spends countless hours in front of a cage cornered by the cage. He talks to the animal with his voice. He stands on the tip of a long pole. Eventually, sometimes after weeks, the animal stops flying into a panic when Damoo approaches.

When he has an animal at that point, he takes him into the training cage, making sure that there are ropes around the animal and that those ropes are held taut by boys outside the cage. Then he plays with him, meanwhile doing everything possible to inspire the animal's confidence. He assures the animal that he is not going to be hurt, he talks to him, he feeds him, and eventually he returns him to his cage.

When the animal has become thoroughly friendly, Damoo starts teaching him simple tricks. With the aid of the boys holding the ropes, Damoo gives him the signal for his sitting on the pedestal. He shows him what is expected of him and rewards him with a piece of meat.

When he obeys. After several sessions with the guide rope and the meat, the animal begins to recognize Damoo's signal and, every time he hears it, he goes toward the

This is, perhaps, an oversimplification of the wild animal

Other he will push or prod him and let him know where he wants him to go.

whip popular  
better, seldom are animals beaten by a trainer. It stands to reason, if a trainer wants an animal to lose his fear, he is hardly likely to beat him up every time he comes in

child is beaten into submission at every point, he will have no respect but he will have fear and a grudge. He will wait for the chance to turn on his parents and if he can turn on them, he will turn on someone else. He, too, is headed for gangsterdom. In animals, too," he says, "there must be both fear and respect. He is punished only for doing wrong and he must know why he is being punished each time. He must be rewarded for being good and be

instant."

Damoo himself, though he has been attacked again and again, only severely hits an animal when there is a real fight and real danger, when the choice is between hitting the animal and being hurt.

Damoo goes into the cage with five spotted leopards, two pumas, two black jaguars, and two black panthers. One of the panthers still attacks him at the slightest provocation. I have seen Damoo time and again avoid the animal's claw by less than an inch.

I watched Damoo train Negus—the 170-pound black lion who once almost killed him—to be carried around

trick, climbing up to the top of a pyramid with other animals. By roping him and feeding him, Damoo finally got him to the point where he would stand on the two stools, his forelegs on one and his hind legs on the other. When the jaguar did this, Damoo would reward him with a piece of meat held out on the pointed end of a stick. After several days of feeding him in this manner, the trainer would pat him on the back to get him used to human touch. Then he went one step further—he put his arm

round Negus' back and exerted pressure on his belly with the palm of his hand. This was to get Negus used to that pressure he would feel when Damoo put his neck under Negus' belt to lift him.

During the first few days of this, Negus was frightened and lashed out at Damoo and then run for his own safety. But by slow and patient work, Damoo got to a point where he could get one arm under the animal's neck and lift him two or three inches off the stools. By the end of the month Negus would lie quietly, draped over Damoo's neck.

It is not my purpose to make heroes of these trainers by painting up the melodrama which is inherent in their profession, but too often in the public mind the amount of patience and study and understanding that goes into training wild animals is underestimated. Another common belief is that the animals have an organ removed, certain teeth and/or other mysterious operations performed to make them gentle. This is utter nonsense. Other people think that the animals behave because the trainer whips the tail of them. If the people who make these accusations would stop to think for one moment, they would realize that if the whip were used to slash the animal, his fur and skin would hardly be as smooth and unblemished as it usually is. Every crack of the whip is a cue in the act of an unaccustomed move, and a trainer can be in serious trouble from the feeling of insecurity this might bring to an animal.

One day Damoo trained a black panther to attack as part of the act. At a certain signal the animal would lunge at Damoo and, as Damoo would step backward from the panther, he would leap and slash out at him with her claws. Time and again I have seen the panther snatch the fur from around Damoo's neck so close to him that I could come within a few inches (pronounced "Men rak") the fur was a very quick animal. Yet Damoo could be

successful with this kind of trick because he himself even quicker and has perfect physical control. He has always managed to keep an inch or two in Menaka's reach.

When Damoo went into the army, another trainer took over the act. The new trainer was a very competent, big intelligent woman. The first time she performed this trick with the panther everything went well until the point which she wanted the animal to stop leaping and go back to her pedestal. Damoo had accomplished this by stopping in his tracks and thrusting his head out at Menaka. The woman trainer was not entirely familiar with Menaka and wasn't quite sure of her. Instead of stopping absolutely still, probably afraid that the animal might try another leap, she took still another step back. But this was exactly the wrong thing to do. Menaka knew this was the cue to jump and she mauled her badly.

In a mixed group all the natural jungle enemies are expected not only to sit quietly as neighbors, but actually come in close contact with each other during many of the tricks. A mixed group trainer has to be good, but even is sometimes attacked, so complete absence of fear on the part of these trainers is something that never fails to amaze me.

For myself I can't claim to be thoroughly unconcerned when working on a wild animal. On the occasions when it was necessary to work on an animal that was not strained and not unconscious I have had a strange feeling in the pit of my stomach and the symptoms of what might be water on the knee. But the trainers dare not be afraid. In rare cases when the trainer has had reason to become so he usually has found it expedient to change his profession.

Damoo is thoroughly aware of all the dangers, but at the same time he has the kind of confidence in himself that makes him feel master of whatever emergency arises. At

Don't had the same confidence. He lived to retire. Trainers who have been in the business for many expect to reach a ripe old age. Many are sure that, if don't, it will be because of a little bug rather than a animal.

Damoo has a beautiful spotted leopard named Sonya

I asked Damoo once whether, despite the fact that he

was so excited, and he knows that he cannot trust

"Now, then," I asked him, "do you protect yourself in you do this trick?"

"If you will watch me carefully," said Damoo, "you will see that some days, on the days when Sonya is upset, I hold on to her when she is upset."

If this makes your blood run cold or bring duck bumps, now then you were not born to be an animal trainer but is the stuff of which successful cat trainers are made. Can I believe what they have can be developed. We are not that way, or we are not.

Cat training is such a fascinating art I never miss a chance to watch one of the trainers working his animals.

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whether it is running through an old act or breaking it for new tricks. Since some of the best trainers in the world have worked and do work with the show, I have had chance to study them all at close range.

There are two kinds of animal men. There is a wide difference between them, although the public usually is unaware of any distinction. The first group are the trainers. They take raw animals out of the jungle, break them, teach them tricks, and perform with them. There are the men like Court, Dhotre, Proske, Clemens, Mathis and a few others. Then there are the men who perform with animals already broken and trained. They simply repeat a given set of signals in order to make the animal perform. One of the most famous of all American "trainers" belonged to this group. He even went so far as to employ a man to train his animals for him. The Hagenbeck Zoo in Germany has for many years trained entire acts and then sold them to "trainers" who were actually the performers.

It is an interesting fact that most cat trainers prefer to work with jungle raised animals rather than with bottle-fed animals. The reason they give is that pet bottle-fed animals are pampered when they are babies and are seldom punished. By the time they get big enough to be dangerous, it is too late to start punishing them. They are so completely unafraid that even hitting them lightly, which is enough to bring a young wild animal under control, will only make them savage and bring on an attack. Trainers feel that if they, themselves, raised an animal on a bottle, they would be sure to start disciplining it early so the animal would respect them and would respect their orders at a later date. But if the animal had been raised as is a pet, by the time it was six or eight months old it would be much more dangerous than a jungle raised animal, because it would have no fear and would only become bitter if then punished for the first time.

There are many legends current about the experiences of animal trainers. One popular story which has been attributed to any number of trainers is about the man who was once attacked by one of his animals, one of the other men then saving his life. I have asked a number of trainers about this unlikely story and have found none of

the act. Before he got around to replacing him, the lion might strike out at Damoo, nipped his arm badly, and,

Damoo stepped back, lunged at him. He knocked Damoo down, and then, Damoo says, another of his lions which happened to be directly behind him leaped over his fallen body and landed on the attacking lion. The two lions started fighting. This gave Damoo a chance to bring both animals under control. However, he says there is no evidence that the

as to the detriment of the trainer, where the other animals became excited by the attacking one and all attacked the trainer. When this happens, the show has only one choice and that is to find a replacement for the lioner at the moment.

As for the cat trainers no doubt get a certain satisfaction out of their difficult achievement. But as for me—the training ring is a nice place to visit but I'd hate to make a living in it.

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My experience of this kind in school was not 11

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Back in my circus initiation period, we had an old lion named Samba. He was past his performing days and was hanging out his years in the menagerie. Never having done any dentistry on a wild animal, I somehow had the confident feeling that perhaps, if I lived a very good life, I would never have to. But Samba didn't know about my confidence and he wasn't a judge of how lives were lived. He was just an old lion having a lot of trouble eating.

The keeper called me over one day, to ask me to watch the way this lion fed. Samba would tear off a piece of meat savagely, and then chew, and chew, and chew. He seemed never to finish one bite of meat. I watched him for a while and then realized that apparently the meat was ticking back in his molars. It couldn't possibly stick there unless those teeth were in very bad shape. There was only one thing to do: check those teeth.

We ran Samba into a squeeze cage and gave him a small injection of Nembutal. (For a short operation like this, there was no point in keeping him asleep for eight or ten or twelve hours.) I gave him just enough Nembutal so that he went down and his jaws were relaxed. I or the next couple of hours he could do me no harm. This was all the time I needed to fix him up.

The menagerie superintendent helped me put him on the operating table to examine him. Two of his lower molars were very badly rotted. They were broken and so decayed they had almost caverns in them. Extracting a tooth isn't too much different from extracting a human tooth. The gum is broken away from the tooth, the tooth is loosened then extracted. The only difficulty

## CHAPTER VII This Won't Hurt Much

MY PASSIONATE DISLIKE of dentistry started in veterinary school. One day an old Negro farmer brought a horse over to us and offered him for sale for one dollar. Some of the horses that these poor farmers bring in at the end of the season are old, some are very old. It had been many years since this horse had been very old. Only once since then have I seen anything so decrepit and that was a horse that a farmer in Ohio tried to sell me as the circus was passing through.

Old as this horse was the school bought him and the students embarked on a campaign to return him to health if not to youth. I volunteered to take over at his dentistry because extraction is very easy in an old horse and I thought I would be getting away with something. I was.

He had two bad teeth in the back of his mouth. I removed my shirt and went to work with real enthusiasm certain that I remembered all my lessons in dentistry. This was an easy job. The boys who were assigned to the rest of his anatomy were really going to have tough going.

Though I established some kind of school record for extracting two teeth in a minimum length of time, for the rest of my years in vet school, it was impossible to live down the fact that one of the teeth I pulled happened to be the wrong one.

Like most kids, I hated going to the dentist—maybe more than most kids, because I had to go more often than most. A dislike for dentists to start with.

h enamel, such as ours. As a result, tooth decay is nonexistent in horses. They do have other tooth troubles. Blind tooth is not uncommon. This is a case of two alternate teeth growing together that the middle tooth has no room to grow. When it doesn't it simply grows backwards or it pushes its way upward until it causes serious trouble. The standard method for treating blind tooth is not

to cut it off at the crown, but to cut it off at the root, and bit, until you reach the root of the offending tooth. Then, with a little dental punch, you simply knock the tooth back into the mouth, and then pack the wound. It is always been interesting to me to note an animal's reaction to pain. Take the horse—this wound I have de-

scribed. When it is nearly healed, I change the packing and irrigate. I would expect that the tissues would be sensitive, but to some extent. Yet I can't recall a single case of the horse seeming to mind in the least this daily changing of the packing, and even probing to determine the condition of the wound.

Extracting a horse's tooth becomes easier as the horse grows older. As a horse ages, his teeth become longer, and they do, the root becomes shorter. Horses frequently lose their front teeth. These are extremely easy to extract. They usually split their teeth, but this, too, causes no trouble except to the horse.

is that the root of a lion's tooth extends into the gum for about an inch and a half and it is ticklish to make sure the entire tooth comes out without breaking off and leaving a splinter of root to cause future infection.

Once Samba awoke, I would look at his mouth to check its condition each day. While working, I explained each step to the menagerie superintendent who, it seemed, had never witnessed any but the most routine work on any of his animals and was fascinated by this procedure. He asked questions continuously and I found that my answers helped clarify my own thinking, as well. We took the teeth out and packed the gums. A few minutes we changed the packing. Meanwhile, it was a good chance to study the rest of Samba's mouth. This was all pretty new to me, too.

We both must have lost track of the time. That is the only way I can explain it. For, while I was pointing out something in the lion's mouth, his jaws, which had hanging loose under the anesthetic, suddenly snapped. We both reacted instantly. We slid him back into the water, Samba was screaming, also dripping wet.

When Samba woke up, he was on a cheap drunk which is the normal result of taking Nembutal as an anesthetic. We put him back into his cage, and after stagg around for a while he lay down and went into a normal sleep. When he awoke he was not only eating normally but was much healthier and active than he had been in months.

Considering the trouble they give otherwise, horses are not too prone to tooth trouble. Their teeth almost never decay. I have a rather obvious theory that it is because a horse's tooth is a very solid bone formation, not

ing is when a doctor, in all innocence, gently touches an

elephant's tusks cause continual trouble. We have found it impossible to saw off tusks, because elephants do fight; when an elephant fights, she would be quite capable of snapping an opponent to shreds with those sharp tusks; even though the tusk has been cut off, frequently an elephant will break what remains. The problem then is to apply a local anesthetic, then pick out as many fragments of the tusk as can be found in order to prevent infection.

and measure the average length of the root of the tusk is about fifteen inches. The wall of the tusk at the root end is nearly as thin as an eggshell.

We had a Russian bear in an act. One day the trainer and his wife stopped me on the path to the hospital to ask me to take a look at the bear. He was eating poorly, they told me, and there were signs of wildness in what was supposed to be a very gentle animal. (The "gentle" was theirs, not mine. Gentleness is something bears are not noted for. Intelligence, maybe. But not kindness.)

We walked into the cage. The trainer and his wife stood right in purposefully, and I couldn't do anything but follow without making an issue of it. The trainer held the bear's head and his wife held the animal's mouth open. Then they looked at me and both assured me I could work unmolested and safely.

It was almost like a clown routine. I was more than a little doubtful. Although I had no intention of making a



watch how he eats and also how he digests his food. If both functions are normal, the chances are that the horse's teeth are all right.

Once a year, I examine all the horses for rough teeth. — — — — — look as that their upper molars outside and their lower

molars on the inside show jagged points are painful as the horse chews his food. The treatment here is very simple. I simply prop his mouth open with an instrument made for the purpose and "float" his teeth. The float is an instrument which looks like a wood rasp, the operation is simply a matter of filing the teeth down until their points are dull.

I have seen dogs with beautiful inlays and very carefully designed fillings. My own hunch is that this is done largely for show, or perhaps for practice. Never in my experience has it been necessary to fill a dog's tooth. If teeth are either healthy or they are split or broken and have to be extracted.

Although elephants have teeth, they seldom cause trouble. An elephant has enormous molars. Each tooth is as big as the palm of a man's hand. I had to pull one once but the tooth was very loose. Since my knees were precisely in the same condition, it was lucky that some careful tugging with a long handled pair of extractors lifted the tooth effortlessly. I should not relish the job of pulling a tight molar, but thanks to elephant ingenuity and intelligence, I very likely may be spared. An elephant, when she is troubled by a tooth, will pull it herself. I have watched the operation and it is amazing. She puts her head down until she can grasp her foot chain in her mouth. Then working the chain back to and under the offending tooth she jerks her head back and knocks the tooth out. Sometimes she has to try several times before the tooth gives but she keeps trying. There isn't as much crying and

is as when a doctor, in all innocence, gently touches

phases' tasks cause continual trouble. We have found

even though the task has been cut out, frequently all  
 out will break what remains. The problem then is to

in the gum is hollow and the wall gets thinner and

We had a Russian bear in an act. One day the trainer  
 his wife stopped me on the path to the hospital to ask  
 to take a look at the bear. He was eating poorly, they  
 told me, and there were signs of wildness in what was  
 once a very gentle animal. (The "gentle" was theirs,  
 mine. Gentleness is something bears are not noted for  
 to have, maybe. But not kindness.)

We walked into the cage. The trainer and his wife  
 led right in purposefully, and I couldn't do anything  
 to follow without making an issue of it. The trainer  
 of the bear's head and he was looking at me.

As though I have no particular ambition to

watch how he eats and also how he digests his food both functions are normal, the chances are that the horse's teeth are all right

Once a year, I examine all the horses for rough teeth. One thing that happens regularly is that their upper molars develop jagged corners on the outside and their lower molars on the inside. These jagged points are painful: the horse chews his food. The treatment here is very simple. I simply made for the an instrument

is simply a matter of filing the teeth down until the points are dull.

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Elephants' tusks cause continual trouble. We have found  
desirable to saw off tusks, because elephants do fight.

phant will break what remains. The problem then is to  
ply a local anesthesia, then pick out as many fragments  
of the tusk as can be found in order to prevent infection.

Within the gum is hollow and the wall gets thinner and  
thinner as the tusk extends inward. This structure is similar  
to that of a cow's horn. My post mortems on several  
elephants indicate the average length of the root of the  
tusk is about fifteen inches. The wall of the tusk at the  
very end is nearly as thin as an eggshell.

and there were signs of wildness in what was  
otherwise a very gentle animal. (The "gentle" was theirs,  
not mine. Gentleness comes with the age.)